

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

JANUARY 15, 1938



Cornus Mas

Identifying Lindens
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Scientists Report on Researches
Convention Reports

AMERICAN NURSERYMAN

Chief Exponent of the Nursery Trade

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CONVENTION TIME.

The winter conventions of nurserymen are well under way, and reports of two of the largest in point of attendance appear in this issue. Larger gatherings are the rule this year, reflecting a keener interest in organization activity, better business done the past year and anticipation of an excellent spring demand. While some landscape firms reported a falling off in business after the stock market slump, others booked all they could handle in autumn and will carry over considerable work until spring. A gradual picking up in industries that suffered sharp curtailment a couple of months ago may, in all likelihood, put business on an even keel before planting time starts. Most important of all, the long-needed home building is being undertaken by private contractors, who found that moderately priced homes built last year found no lack of buyers. Such real estate activity promises to give nurserymen some good orders for the season ahead. So the general spirit prevailing at the current conventions is one of optimism.

FOR HIM WHO RUNS.

Anyone interested in learning all that he might about those things which affect nurserymen in one way or another should find no end to his reading in books, magazines, annual reports of government officials, experiment station bulletins, etc. A man who has to operate a nursery for his livelihood, however much he

The Mirror of the Trade

wants to keep posted, has time to scan but a small fraction of this material. One function of a trade magazine is to do such reading for its subscribers and present the high lights so that he who runs may read.

At this time of year of special importance are the annual reports that come from Washington, as well as from state capitals. In this issue are given a few statements from the annual report of the bureau of entomology and plant quarantine of the United States Department of Agriculture, for it shows that the insect pests and diseases found on shipments of plants and plant products imported last year under permit give ample reason for strict enforcement of quarantine 37.

Another annual report of interest is that of the forest service, which maintains thirty-two nurseries in various parts of the country to grow stock for reforestation.

As a regular department of this magazine is maintained space devoted to reviews of scientific bulletins, so that nurserymen may glean the conclusions of the large amount of research done, some of it quite directly affecting their operations. It sometimes takes considerable time to glean from a lengthy bulletin that which pertains directly to the trade, but it is hoped in this way that nurserymen may keep track of a wider group of developments than if they were obliged to gather and peruse such reports and bulletins for themselves.

CORNUS MAS.

Just why the cornelian cherry, *Cornus mas*, has not become more popular in this country is difficult to determine, as it has many desirable characteristics. Perhaps its most noteworthy trait is its habit of flowering in late winter or early spring before the leaves appear. Its appearance at that season is illustrated on the front cover. In the Chicago region, *Cornus mas* usually flowers in late March and early April. Naturally, farther south the blooming period is even earlier.

The cornelian cherry is not a showy shrub when in flower, but true garden lovers are invariably intrigued

by the tiny yellow blooms, coming as they do so early and appearing in clusters in the axils of the undeveloped leaves. The flowers precede the more colorful forsythias, but the blooming sprays of *Cornus mas* are also favored by garden club women for early indoor bouquets. The cut sprays can be forced as readily as those of forsythia. All these points can well be used by nurserymen in selling the cornelian cherry.

It has other points of merit. For one thing, it tolerates smoke better than many shrubs; hence, it is fine for planting about city homes or other buildings and in city parks. Also, the plant retains its handsome lustrous green foliage until late in autumn. The elliptic leaves are from three to four inches long. This shrub is tolerant of considerable shade, too. Last, but by no means least, *Cornus mas* produces attractive, scarlet, plum-like fruits in August. They are edible, the rather pleasantly acid flavor appealing to some persons and not to others. Fruiting is ordinarily heavy on old plants, but the leaves do a rather good job of hiding the berries.

As to hardiness, this shrub—it sometimes assumes the habit of a small tree—has been found dependable at the Morton Arboretum, just west of Chicago, and should prove satisfactory in most other sections of the country, Wisconsin, Minnesota, the Dakotas, Montana and most of Iowa excepted.

Cornus mas is ordinarily grown from seeds sown in a coldframe in autumn or stratified for four months in sand and peat or peat alone at a temperature of 50 degrees—a range of 41 to 50 degrees is all right—and planted in spring.

Many of your garden club customers will be pleased to have this delightful shrub called to their attention. Why not help spread this pleasure?

THE Southern California Horticultural Industries, Los Angeles, have prepared a 1,200-foot motion picture in color, "Going Places with Trees," which is ready for showing to groups of twenty-five or more on request. Booking dates are being made now for 1938.

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No. 2

Identifying the Lindens

*Following Introductory Article of December 1, Second in Series Discusses Characteristics of the Hairy Linden, *Tilia Platyphyllos*—By Leon Croizat, of the Arnold Arboretum*

The hairy linden, *Tilia platyphyllos*, usually gets the first place in books of horticultural reference that deal with the lindens of Europe. We need not to leave it behind, either; it is the easiest *tilia* to identify.

As I see it, in winter a mature tree of this species suggests the habit of the sycamore maple, *Acer pseudoplatanus*, but with some important differences. The trunk of the linden branches low, or very low, and in time sends out gracefully curving main leaders, which often are flattened sidewise at the base. The bearing of the maple is much stiffer. The bark is light-colored, although darker than that of the maple. Toward the top of the trunk, however, it turns ashen gray and is beset with characteristic "diamonds" of a very dark color.

The leaf is fairly large, as lindens go, heart-shaped, yellowish green in most trees and of the same color on both surfaces.

These characters, important as they are to the trained observer, may be deceptive to the layman because the glossy linden, *Tilia euchlora*, has bark of a color that closely matches that of *Tilia platyphyllos*. Fairly large leaves are also found in certain forms of the red linden, *Tilia rubra*, and of the common linden, *Tilia vulgaris*. The best and the safest character of identification of *Tilia platyphyllos* is the hair and the fruit.

No linden commonly cultivated is hairy as this species is. In all other lindens the leaf has no "feeling" that can be noticed or even less described. In *Tilia platyphyllos*, on the contrary, the leaf feels velvety because the hair stands up on it like the nap of cor-

duroy. Each individual hair is like a minute bristle. It can easily be seen either with the naked eye or with a pocket lens. There are other species, of course, that have here and there hair of this nature, such as certain forms of the red linden and the gray linden, *Tilia neglecta*. But in *Tilia platyphyllos* alone the hair is all bristle-like. *Tilia rubra* and *Tilia neglecta* have comparatively few bristle-like hairs mixed in with more or less regularly star-shaped hairs. The readers can be assured that it is worth-while to look at these details with a magnifying glass. Incredible as that may seem, large trees can be recognized by such trifles.

A scantily hairy variety of *Tilia platyphyllos* is in cultivation, and of it I have seen a few trees that could be described as almost hairless. Even these specimens, however, showed some hair of the pattern which is characteristic for the normal form. The best place to find hair in lindens is on the back of the leaf, not far from the base, near the insertion of the petiole and alongside the main ribs. If doubt persists, other characters can be looked for, in addition.

The ripe fruit of *Tilia platyphyllos* is very woody and distinctly ribbed. I cannot crush it between the fingers, and I believe that anyone who can crush it by hand has good reason to be proud of his grip. Naturally I have never made it a point to ask everybody to try his hand, but I have never seen anyone who could crack that frail-looking nutlet, either. The American lindens, or basswoods as they are also called, have tough nutlets, too, but these nutlets either are

not ribbed or only faintly ribbed. The silver lindens have woody, ribbed fruits, but all their characters are so different from those of *Tilia platyphyllos* that it should be impossible to go wrong in making the identification.

In winter, fruits are usually found either still hanging from the tree or scattered upon the ground. Dead leaves that may be left are just as good as fresh ones for identification, because the characteristic hair persists regardless of the conditions of the leaf. If neither fruits nor leaves are available, it is never a loss of time to pull out the lens and to look carefully at the angle formed by the bud and branchlet. If the tree is *Tilia platyphyllos*, at that spot hairs are almost always found, more numerous in autumn and in early winter than late in the season. On the leaves of trees that manage to survive city conditions, little hair is left even early in the summer, because soot destroys it. It is advisable, consequently, to try out several branchlets, paying close attention to those of latest growth. Patience is apt to get its reward, and not more than traces of the characteristic bristle-like hair of the species are needed to establish the identification.

The branchlet also offers some good characters. When frosts begin, it turns yellow to purple, and many horticultural varieties—lutea, coralina, aurantiaca, etc.—have been established upon the winter color of the younger growth. This growth looks fleshy, and the branchlets are usually fairly straight. The branchlet of the glossy linden has the same color

as that of *Tilia platyphyllos*, but it is hairless, slender and almost invariably zigzagging in habit. Its bud is also more pointed than in our linden. Young American lindens have twigs that much resemble those of *Tilia platyphyllos* in color, as well as in the fleshy aspect of the growth of the last season. Their buds, however, are stubby, abruptly and shortly pointed as a rule, and in most cases the last season's growth is overlaid by a thin, gray layer which peels off easily and does not occur in *Tilia platyphyllos*.

I may as well say now that the bud of all lindens is a peculiar structure. I have known a teacher of dendrology who used to describe it as "a cloak and apron affair." He would cut off a sprig, turn the back of the bud

toward the class and point out how neatly the larger scale cloaked the bud, "just like a mantle that closes at the neck and buttons in front." Then he would turn the bud around and show how snugly the smaller scale sealed the cloak in front, "just like an apron." Whatever third scale happened to be found in some of the buds of vigorous shoots he would call a "side bag." All the pupils who took his course could identify a linden in winter yards away. In *Tilia platyphyllos*, for instance, the "apron" is about half as long as the "cloak." In the American lindens the "apron" may be almost as long as the "cloak." Care must be taken in using this character that the bud has not yet begun to swell.

In addition to hair, fruit, twig and bud, other characters can be suggested to identify *Tilia platyphyllos*, as follows:

(1) The trees bloom at least ten days or two weeks before all other commonly cultivated lindens. In New York city *Tilia platyphyllos* is in flower about the end of May. The ovary is large and becomes very large shortly after pollination.

(2) The flower is open; that is to say, its petals are widely spreading and comparatively narrow.

(3) The plants cultivated under city conditions lose their leaves early in the summer, and so far as I have observed in New York city, many trees are badly defoliated, especially after rainless spells of hot weather. To compensate, new leaves often appear on the tree in late summer or early in the autumn and linger on until killed by the frosts.

Tilia platyphyllos thrives only where the ground is well watered. It should never be used indiscriminately in city planning.

COLLECT TREE SEEDS.

Trained crews of Civilian Conservation Corps enrollees, working under direction of soil conservation service foresters, expected to collect more than 7,000 bushels of tree seeds in the Ohio valley the past autumn.

The tree seeds being gathered in the Ohio valley represent only a small part of the nation-wide seed harvest. The service estimates that more than 1,500,000 pounds of tree and shrub seeds and almost 700,000 pounds of grass seeds will be collected by next July.

The biggest harvest probably will be of black locust. Farmers like this tree because it grows fast and soon produces a crop of fence posts and timber. Soil conservers like black locust because it is one of the best trees to control erosion. Each tree sends out a mass of tough, fibrous roots that bind topsoil securely to the land. They say locust will grow in rather poor land, and because it is a legume it builds up and enriches the soil.

Other popular species, of which large quantities of seeds are being collected, include oak, black walnut, hickory and pine.



Twig and Leaves of *Tilia Platypyllos*.

Thrifts of Garden Value

Genus of Easy Culture Contains Many Good Species, Some Rare and Some Widely Popular—By C. W. Wood

Taking the group as a whole, the thrifts hold more beauty for garden adornment and for cutting than almost any other genus of equally easy culture. That accounts, of course, for the wide popularity of a few kinds, but it can scarcely be the reason for the neglect of many other species of equal value. One serious drawback with which the plants have long had to contend is the awful state of confusion which exists in nomenclature, not alone in the generic name, which has vacillated between *armeria* and *statice*, but in the material which nurserymen have supplied under specific names. It may, as a consequence, be profitable to take a little space to examine these two points.

The last time I had occasion to mention thrifts in these columns it was the generally accepted opinion among botanists of the world that the correct generic name for these globular-headed species which horticulturists knew as *armeria* was *statice*. That had been the situation for years, much to the confusion and detriment of nurserymen who tried to follow correct nomenclature practices. Now just when horticulturists were ready to accept the validity of *statice* as the generic name for the *armeria* group, which has been apparent from catalogues of recent years, more and more of which had been adopting *statice*, the botanists have reversed themselves. Allow me to quote from a recent letter from George H. M. Lawrence, of the Bailey Hortorium, at Cornell University, who has been working on a monographic revision of the genus: "At the last Botanical Congress, held in 1935, it was voted to place the genus on the proposed list of conserved names and reject the genus *statice* as a nomen ambiguum. As a result of recent correspondence, Dr. Bailey has been informed by Miss Greene, secretary of the committee on nomenclature, that the committee has voted to adopt *armeria* as the conserved generic name and reject *statice*. In this particular instance, the ruling is, I believe, favorable to the horticulturists." It appears, then, that we can rightly use the old familiar name *armeria* and perhaps at last

get some uniformity in our nomenclature.

The matter of specific names is an entirely different one and is not to be solved entirely by the scientists. It is true that they differ not a little on the boundary lines of the species, some claiming with Kuntze that there is but one species of these globular-headed thrifts, the various kinds which have been given distinct rank being varieties of this one polymorphic species, while others divide it into even more species than the material seems to warrant. Be that as it may, there are several quite distinct kinds—distinct at least so far as garden uses are concerned—and it is to these that we now direct our attention.

Perhaps of most interest to the rock gardener is *Armeria cæspitosa*, which is the same as *A. bella* so far as I can see from the material I have had under both names. This is a pretty little alpine, making a compact cushion of deep green leaves, on which sit small, stemless heads of pink flowers. The color varies when plants are grown from seeds, running from pale pink (sometimes almost white) through deeper shades to deep rose and lilac pink. This is as it should be, I suppose, for some gardeners prefer the pale shades, while others would rather have the more vivid colors, and any particular shade may be easily reproduced by means of division soon after flowering is completed. This same habit of varying flower color and the ease with which the different species intermingle have also been a stumblingblock in the way of propagators who have depended upon seedage in their work and account for much of the confusion which exists in gardens. The blooming period of this little treasure commences in northern Michigan soon after the passing of winter's snow; fat little buds appear all over the cluster of rosettes with the first few warm days, opening soon into a solid mat of color, which extends over a month or more. This is the only thrift of my acquaintance that is likely to cause the gardener any trouble, and then only if he operates

on a heavy soil and tries to grow it on a level surface. On my light sand it does well in any sunny situation, but gardeners with a stiff clay tell me they have to plant it on a steep slope or a crevice on rockwork.

Taking up the task in May when the former leaves off, *A. alpina* carries on for a matter of two months or more, with its little heads of a similar color. In fact, it does not surprise me when *alpina* continues to bloom all summer long, for, although that is not always the case, it often happens when conditions are just right. *Alpina* is just a little taller and its foliage mass a little more ample than the first-named, resembling more a miniature *A. vulgaris* in its make-up. The only other thrift of this general stature that I have grown is *A. setacea*, a Spaniard, which was lost during the severe winter of 1933-34. As it grew here, it was scarcely distinct from the better forms of *A. alpina*.

Another Spaniard, *A. fasciculata*, is a plant of definite value. It starts out to be a monster, making clumps of broad, linear leaves, the clumps sometimes as much as a foot across, and winds up by producing a number of 8-inch to 10-inch stems, bearing heads of whitish to deep pink flowers. It also is slightly too tender for our northern winters. It is not so prodigally floriferous as some of the selected garden varieties, but it, with *A. plantaginea*, which will be mentioned later, is one of the champion long-time bloomers, seldom being without flowers from May to October. It may be well to dispose of another broad-leaved species, *A. plantaginea*, at this time. Instead of the yucca-like growth of the next preceding, here is a more or less flattened clump of plantain-like foliage, from which spring foot-high scapes from June until frost, carrying large, globular heads of white to rose. It is an excellent plant for the rock garden and border, and selected shades make good cutting material.

Before going on to a few of the more popular kinds which are in gardens under a bewildering number of names, let me mention a few which

are seldom seen. Of these I believe I like *A. undulata* (*A. argyrocephala*) best, not because of any spectacular beauty, but rather on account of its peculiarities. In the first place, instead of the usual ample tuft of leaves, this one has always been quite constant in producing a meager clump of narrow, grayish leaves, which lie flat on the ground, 4-year-old plants being no wider than four or five inches and carrying only eight or ten leaves. And again, instead of the generally stiff stem, this species has a tall, graceful, waving scape. The stem is much taller, usually about fifteen inches, in proportion to the other plant parts than is usual in the genus, but that gives it a distinct appearance which sets it apart as a garden ornament. Everything that I have had so far has been neither white nor pink, giving a shade that I thoroughly dislike, but a good clear pink in this species—a goal that I hope to reach—would be my ideal for certain positions in the rock garden.

Bailey gives *A. setacea* as a synonym of *A. juncea*, but material in European trade under the latter name is so distinct there is no comparison. In stature alone they are far apart, the former being as noted in a former paragraph, while *A. juncea* is an 8-inch plant, with tufts more like *A. vulgaris* and flowers varying from whitish to rose. The plant which Correvon refers to as *A. juncea* as coming from Corsica is indistinguishable from the *A. setacea* from Spain, according to material I have had.

It would be possible to go on for a long time naming other species, such as *artica*, *allioides*, *filicaulis*, *cantralrica*, *majellensis* and others, but what has been said will give an idea of the wealth of material to be found in this interesting genus. Since most of them are absent from American lists, they will have to be grown from seeds, and one is never sure what *armeria* seeds will produce, but that only adds spice to the adventure.

In closing, a few words about the more popular kinds may be in order. No attempt will be made to straighten out the synonymy; rather the names common in garden literature will be used.

Whether *A. vulgaris* or *A. maritima* (the name seems to be used interchangeably in catalogues and represents the same plant as others list as *Statice Armeria*), that species offers much good material to the gardener,

perhaps the best readily available form being variety *Laucheana*. This is a jewel, with its rich rose flowers on plants six inches high. The color is good; the plant blooms over a long season, and its ease of culture makes it almost foolproof. On the same order is variety *Vindictive* except that its color is bright crimson, making an even showier plant. It is not possible to grow these named forms from seeds because the progeny varies so much in color, but they are readily propagated from cuttings or division.

Coming to the taller kinds, let me recommend with enthusiasm the group now commencing to appear in a few catalogues as *Armeria formosa hybrida*. The globular heads, which may vary in color from whitish through all shades of pink to reds of numerous shades and near-purple, are larger than one expects in this class of plants, and the stems are rigidly erect to a height of eighteen inches or such a matter. *Armeria cephalotes rubra* is also a worthy plant for the border and as a cut flower, with rich crimson flowers on foot-tall stems during July and August. But the prize among the tall kinds, especially when a definite color is wanted, is to be found in Bee's Ruby, which carries immense heads of glowing crimson red on 12-inch stems during much of the growing season. It is a valuable cut flower, the heads being large and showy, and an excellent border plant. No doubt it will be immensely popular when better known.

All these thriffts are of easy culture in a sunny spot in well drained soil. They come readily from seeds, but are so variable it is nearly always preferable, and absolutely necessary in the case of named varieties, to propagate by vegetative means. Cuttings left after close divisions are made root readily in a close, shaded frame during the summer.

COLOR IN APPLES.

If an apple has 3-galactosidylcyanidin it blushes. If it merely has 3-galactosidylquercetin it is usually yellow. Chemical tests by United States Department of Agriculture workers indicate that 3-galactosidylquercetin is present in yellow apples such as the Grimes Golden variety, but this particular substance is not identical with or responsible for the yellow color. In red varieties the unseen coloring matter is acted upon

chemically and changed to red idaein, which is a simpler name for 3-galactosidylcyanidin. They have not yet identified the conditions that cause this change from yellow to red.

FOREST PLANTING.

Reforestation of national forest areas, by tree planting and tree seed sowing, last year exceeded that of any previous year by more than 82,000 acres, according to a report by the forest service of the United States Department of Agriculture.

Trees were planted on 214,306 acres and tree seeds were sown on 8,769 acres—a total reforestation of 223,075 acres. In addition large areas are coming back by means of natural reforestation.

To meet the planting needs, the present approved output of thirty-two national forest nurseries scattered throughout the country is more than 225,000,000 trees annually.

The forest service estimates show that 4,000,000 acres of national forest land are unproductive, but capable of growing forests. The past year's accomplishments were made possible, it is pointed out, largely through the work of the C. C. C. and emergency relief appropriations.

To make available resources meet the most urgent needs, most of the planting was in the lake states and the south. Much of the national forest areas in these two regions is made up of land once privately owned and heavily cut and burned. Once trees are established, the soil produces good forest stands, and these generally are accessible and relatively near heavy centers of population and demand.

Forest service officials say the general practice is to resort to artificial planting or sowing only where the forest has been badly abused by fire or over cutting. On lands under forest management, with an adequate stand of timber, reforestation takes place naturally by proper cutting and protection methods.

FEBRUARY is a good time to cut back trees for top-working purposes. Wounds heal better then, and up to three-fifths of the top of the tree may be removed without causing much shock. Cut ends of branches should be covered at once with a protective wound covering.

Advertising on the Air

*High Spots of Talk Before the Western Association of Nurserymen
by Olaf S. Soward, News Commentator on Radio Station KCKN*

Fundamentally, it is probably as true today as it was a century ago that if you make the best mousetraps in the world, that same world will beat a path to your door even though you bury your workshop in the deepest shadows of a forest.

But that takes too long nowadays. We are all of us too busy making life a more comfortable, more interesting and more significant thing than it was a hundred years ago, when those words were written by an early American philosopher. We of today don't have the time to hunt up those faint trails in the business woods to see if they lead to the door where you sell your goods.

The man who sells mousetraps, grand pianos—or potted begonias—has to blaze the path to his door so clearly and plainly that we simply cannot miss it, even at the mile-a-minute clip life imposes on all of us in this generation.

Advertising is the psychological equivalent of the airplane or the streamlined train. Time was when the oxcart or the stagecoach served all the needs of business transportation, but that was in the days when the deerskin hunting suit lasted the frontiersman twenty years and his wife prepared the rough homespun for the children in her own kitchen from the raw flax and wool.

With tropical fruits on Michigan breakfast tables this morning, with Paris styles sold in Denver stores a few days after they appear on the Rue de la Paix, with the latest German medical discoveries prescribed by Los Angeles doctors a week after their announcement in Berlin and with Kansas and Missouri apple trees blooming virtually all over the United States—there is no room left in our world nor our advertising methods for oxcarts.

In my early experience as a newspaper advertising salesman I met many business men who did a little advertising of some kind or another out of a sense of obligation to the home town or to business acquaintances. Such men are not advertising; they are tipping their friends as

though they were Pullman porters or bell hops.

The first task of intelligent advertising is to stop and ask ourselves what we are really trying to do with the money we spend, and then see to it that we go about it properly to accomplish the ends sought.

Advertising's job is making people want what you have to offer them. Competitive price copy has its place, but beware of making the cut-price appeal your only one. There is no lasting customer loyalty built up on a price differential of 2 cents on a 69-cent purchase, and the memory of real quality lingers years after the price has been forgotten.

But much more important than this competitive bidding after sales which already exist is the broad-visioned task of making more people want what you have to sell.

There are critics who hold that we should not stimulate people to want motor cars or flower beds, radios and privet hedges. Let folks gradually make up their minds by themselves as to what they want or don't want, is the cry of those critics.

If our race had followed that philosophy, we should still be hunting the hairy mammoth with stone axes and flint-headed spears. We would still be dressed in cave bear skins—and not too many of them!

Don't let anybody kid you! Advertising is the lifeblood of human progress, of civilization, of ambition and of accomplishment, as well as a profitable investment to build up your own business, if you use it wisely.

It is not necessary to emphasize the advantages of advertising to nurserymen. As a whole, they have over a long period of years proved themselves more adept at getting the maximum results from moderate appropriations through a sane and conservative persistence in employing all worth-while media than, perhaps, any business classification of the nation.

Newspapers, magazines and direct mail—especially in the form of catalogues—are no strangers to the ken of shrewd nurserymen who have made outstanding records of success.

Even in radio, our newest advertising medium, nurserymen have been quick to find the benefits which every additional advertising outlet provides to the firm which seeks to achieve a real balance by including all the weapons which the modern business arsenal places at the disposal of an up-to-date business general in mapping his campaigns for the conquest of profits.

But it will not be amiss to take a brief look at some of the wheels by which radio makes the cash register jingle. It involves the use of the human voice, and nothing is more persuasive at its best; nothing is better able to clothe your business with friendly personality than the trained voices of the salesmen of the airways.

Just as nurserymen are "merchants of beauty" in many of their transactions, the radio also thrives on an appeal to beauty—that the radio will sell by matching charm with charm.

Of course, we can't quite make the listener smell your flowers or taste your peaches—just yet! But we can paint psychological mood pictures with music that puts your prospects in the frame of mind to be interested in a sales message for the cool delight of shade trees. We can set up dramatic situations which waft to the awakened imaginations of those listeners a most convincing reminder of your choicest gardenias. And those are the keys that unlock pocketbooks!

The universal interest in news also gives the radio advertiser an opportunity to cash in on the inherent interests of mankind. News programs can be so manipulated in editing and timing that any particular audience, farm or city, men or women, or all of them, can be attracted. And the news of flowers, shrubs or trees—if adroitly blended with such news of the world—can be made to leave a sharp impression on the mind of every hearer.

However, you must give any kind of an advertising campaign an opportunity to produce for you, and radio is no exception. Tests have demonstrated that it requires a period of thirteen weeks to establish even the most spectacular programs and an

additional thirteen weeks to permit them to build up the ranks of the listening audience to its full potentialities.

It must always be borne in mind by the radio advertiser—first, last and all the time—that everyone must guard against talking listener interest to death. The only reason the public tunes in programs is for the music, the drama or the news—for its own interests, in short.

Now this public is made up of good sports, who expect you to have your commercial story told along with the program. But if you smother the real heart of the program under an avalanche of words about what you have to sell—why, twist will go that knob on the front of the listener's radio set, and your program will be booted into radio oblivion.

If you forget those necessary guideposts to radio advertising success, you merely play into your competitor's hands and leave the road clear for somebody else to gather in the riches that are to be had by advertising in the skyways.

But if you deal fairly and intelligently with your unseen friends of radio world, your sales message will get itself across pleasantly, effectively, painlessly—and profitably—in restaurants, trains, homes, motor cars and offices where and when no printed campaign in the world would stand a ghost of a chance.

C. C. SMITH.

Clifton Charles Smith, who has just completed a term as president of the Western Association of Nurserymen, has spent a quarter century in the nursery business, though only 43 years old, having been born November 3, 1894, at Stacyville, Ia. His entire business career has been with the Sherman Nursery Co., Charles City, Ia., where he began working June 1, 1912. His only absence was six months spent in the army during the World war. Of Danish-Irish parents, he was orphaned when 7 years old and earned his own way from that time on. At present he is secretary and a member of the board of directors of the Sherman Nursery Co., which he served as sales manager for the past twelve years.

In recent years he has been an equally hard worker in trade organizations. He has been secretary-treasurer of the Iowa Nurserymen's

Association since 1931. For several years he has been secretary of the Northern Retail Nurserymen's Association, having formerly served as president. He was also president of the United States Retail Nurserymen's Association for three years.

In local civic activities he is also prominent, as a member of the American Legion and as past president of the Rotary Club. He married Margaret Ann Welsch, and they have one son, Bill, aged 14.

HALT FOREIGN PESTS.

Congress this year recognized insect pests and plant diseases as public enemies, according to the annual report of the bureau of entomology and plant quarantine of the United States Department of Agriculture. It authorized appropriations up to \$2,000,000 for department coöperation in putting down incipient and emergency outbreaks of insect pests or plant diseases. Heretofore, the department has been forced to seek extra funds for each specific case. Now it can marshal its forces and begin the attack as soon as a dangerous plant pest makes its first appearance or when old crop pests show signs of getting to the point of outbreak proportions.

The 1936-37 campaigns against insect pests and plant diseases are outlined in the report by Lee A. Strong, chief of the bureau. Besides pointing out what has been done in controlling pests already in this country, attention is given the work of preventing the entrance of others.

Every unidentified insect reaching these shores on foreign plants or

plant material—or turning up anywhere in the country—must be identified to make sure it is not potentially dangerous. In the year covered by Mr. Strong's report, the number of insect identifications reached 77,856. More than 100,000 new specimens were added to the bureau's huge collection of insects from all over the world. They are identified by studying their structure and appearance and by comparing them with those in the classified collection.

The foreign plant quarantine force, stationed at important ports of entry, met increasingly heavy demands in the watch for insect pests and plant diseases not yet present in the United States. Faster lines of communication with the rest of the world, notably the great clippers of the air, offer alien insects better chances than ever before of getting here in good, healthy condition.

The inspectors last year examined 44,384 shipments of plants and plant products imported under permits. At the maritime ports they inspected 30,920 ships from foreign countries, Puerto Rico and Hawaii. Prohibited plant material was found in 12,470 of these inspections. At Mexican border ports, 33,790 freight cars were inspected.

Inspection of 3,321 airplanes from foreign countries and from Hawaii resulted in 1,505 interceptions of prohibited and restricted plant material and 1,505 interceptions of insects and plant diseases from 920 planes. With the coöperation of post-office officials, 249,583 parcel-post packages from abroad were examined.

Inspection results at all ports of entry added up to 71,188 interceptions of prohibited and restricted plant material and 86,703 interceptions of insects and plant diseases. The insects belonged to 1,339 recognized species and to unrecognized species distributed among 1,257 genera and families. Included in the interceptions were fungi of 313 species, nematodes of eight species and many diseases caused by fungi, bacteria, nematodes or other agents.

SEEDLINGS of water hickory, *Hicoria aquatica*, have been found unsatisfactory as rootstocks for the pecan. Furthermore, pecan trees on water hickory rootstocks have not been found to be adapted to growing on wet land, as was formerly supposed.



C. C. Smith.

Scientists Report on Researches

Abstracts of Papers of Interest to Nurserymen Presented at Recent Annual Meeting of American Society for Horticultural Science—By L. C. Chadwick

Facts useful to nurserymen were brought out in a number of papers presented by scientific research workers at the thirty-fourth annual meeting of the American Society of Horticultural Science, held at Indianapolis, Ind., last month. Abstracts of these papers are as follows:

"Root Distribution of Elms," by L. C. Chadwick, Donald Bushey and George Pletcher, of Ohio State University. Work was done on eight native plants of American elm, thirteen transplanted nursery plants of Moline elm and potted seedlings of Japanese hornbeam, *Carpinus japonica*. The native American elms were growing on a poorly drained silty clay soil. Seven of these varied in diameter from one and one-quarter to six inches; the other was seventeen inches in diameter. The Moline elms ranged in diameter from one and three-quarters to four and three-quarters inches and were growing on a silty clay loam. Clay, loam, muck and sand were used in various combinations for growing the Japanese hornbeam in pots. The results with the seedlings of the Japanese hornbeam show that a small, sparsely branched root system with few fibers was produced in clay soil. The tops were also small. Plants in sand had a slightly better top and root system. Plants in loam produced a root system composed of many long laterals and many fibrous roots. Plants grown in muck had the largest and most compact top and root system. The root system was shallow on the native American elms. The radius of root spread exceeded the height of the tree. The depth of root penetration was four to five feet. A preponderance of fibrous roots was found near the end of the lateral roots. Few fibrous roots were located directly under the outside spread of the branches. Fibrous roots often appeared from the crown and large lateral branches. With the thirteen Moline elms it was found that the spread of the roots is twenty-five to thirty times the diameter of the tree one foot above the crown. Most of the fibrous roots are in the lower part of the A horizon. The figure obtained by substituting

"feet" for "inches" in the measurement of the trunk gives the radius of the area containing one-half the roots of the plants.

"Some Effects of Mulches for Winter Protection of Herbaceous Perennials," by R. C. Allen and S. E. Wadsworth, of Cornell University. Buckwheat straw, oat straw, shredded sugar cane, peat moss, excelsior, manure, glass wool, leaves, balsam wool and burlap were the mulch materials used. The results show that oat straw is a little more favorable for the plants than wheat or buckwheat straw. Shredded sugar cane was about equal in its effect on the plants as the various straws. In general, excelsior was less effective than the other types of mulch materials. Fairly fresh strawy manure was about equal to excelsior. In almost every instance, the plants wintered in better condition under the glass wool than under any of the other types of mulches. With most plants the use of leaves as a mulch gave poorer results than the check plots which were uncovered. Results with balsam wool were unsatisfactory. Burlap proved to be of little value. Granulated peat moss was effective in preventing fluctuations in temperature. Snow is a good insulator where it is possible to keep it on the plots throughout the winter. Mulches appear to affect herbaceous perennials by their influence upon temperature, moisture and light conditions.

"Manganese Sulphate as a Corrective for a Chlorosis of Certain Ornamental Plants," by R. D. Dickey and Walter Reuther, of the University of Florida. *Bougainvillea*, *allamanda*, *Thunbergia grandiflora*, *flame vine*, *Agyneja impubes* and *crape myrtle* responded to spray applications of one-half and one per cent solutions of manganese sulphate. *Crape myrtle* also responded to soil applications of one pound of manganese sulphate.

"Temperature and Humidity Requirements for the Storage of Dahlia Roots," by R. C. Allen, of Cornell University. The results of these experiments show that temperatures of 35 to 50 degrees Fahrenheit and a relative humidity of eighty to eighty-

five per cent are satisfactory for the storage of dahlia roots. Desiccation of the roots can be reduced by coating with paraffin or storing in peat moss with a moisture content of fifty per cent.

"Factors Affecting the Growth of Tulips and Narcissi in Relation to Garden Practice," by R. C. Allen, of Cornell University. The factors investigated in this study were (1) date of planting, (2) depth of planting, (3) date of digging, (4) fertilization at planting time and (5) removal of leaves and flowers. The results show that early planting, by October 15, is advisable. *Narcissi* are more tolerant of late planting than are tulips. They can be planted as late as February 15 without seriously reducing the production of new bulbs. The most favorable planting depth appears to be with the tip of the bulbs four inches below the surface of the soil. Digging of *narcissus* bulbs in the latitude of Ithaca, N. Y., should be delayed until about July 15. Those dug June 1 showed no reduction in number of flowers. The size and quality, however, were inferior to those dug at later dates. The general fertility of the soil will alter the effects of any fertilizer application. In the particular soil where these tests were carried out, a 5-10-5 fertilizer gave the greatest increase of bulbs. Removal of flowers tended to increase the weight of the bulbs, while removal of the foliage reduced the weight.

"The Use of Growth-regulating Substances in Rooting of Cuttings of Certain Ornamentals Bearing Edible Fruits," by A. S. Colby, of the University of Illinois. Cuttings of *Amelanchier stolonifera*, *Chænomelias Baltzii* and *semperflorens* and *Viburnum trilobum* were taken at three different times, July 3, August 24 and November 2. The first two series were treated with Kak and the latter with indolebutyric acid or with a-naphthaleneacetic acid. The second series was treated for three, six and nine hour periods. The 6-hour treatment was most effective. In the third series the growth substances were used at rates of ten, twenty and forty parts

per million of tap water with a treatment of twenty-four hours. Only a slight rooting response occurred. August was judged the best time to take the cuttings.

"Rooting Response of Azaleas and Other Ericaceous Plants to Auxin Treatments," by Henry T. Skinner, of Cornell University. Cuttings were selected from forty-five different ericaceous plants, including *enkianthus*, *erica*, *kalmia*, *leucothoë*, *oxydendrum*, *piersis* and *rhododendron*. Summer cuttings (June-July) were used, treated with indolebutyric or indole-acetic acid and rooted in media of sand, one-half sand and one-half peat or peat in outdoor hotbeds provided with controlled electrical bottom heat. Concentrations of solutions used in the treatments varied, but for the most part dilution ranges of one, four, eight and nine milligrams per hundred cubic centimeters for eight, twenty-four and forty-eight hours were used. With the exceptions of *Oxydendrum arboreum*, *Pieris floribunda* and *Rhododendron albicans*, *altaclarens* *Veitchii*, *Apelles*, *Compte de Gomer*, *Frere Orban*, *Grandeur Triomphant* and *roseum*, all the other types were successfully rooted without treatment of any kind. However, the rooting capacity of different species and varieties is widely different. With the majority of plants tested, treatments with indolebutyric acid resulted in a higher percentage rooting. Indoleacetic acid was less effective. Indolebutyric acid treatments reduced the time of rooting by an average of about two weeks and resulted in the production of larger and better root systems. These cuttings of ericaceous plants seemed to be tolerant of relatively high acid concentrations, eight or nine milligrams per hundred cubic centimeters. Best length of treatment varied between eight, ten and twenty-four hours. Ten hours was the most favorable single treatment. It is interesting to note that the results showed that if a weak concentration of indolebutyric acid is ineffective as compared with a stronger one, its effectiveness may not necessarily be increased merely by soaking the cuttings in it for a longer time. A sand and peat mixture gave better results in rooting than either sand or peat alone. With the plants *Pieris floribunda*, *Rhododendron altaclarens* *Veitchii*, *R. Compte de Gomer*, *R. minus*, *R. roseum* and *R. Vaseyi*, the rooting of cuttings in these tests was poor or

wholly unsuccessful, based on percentage of rooting or condition of root system.

"Composition and Rooting of American Holly Cuttings as Affected by Treatments with Indolebutyric Acid," by Neil W. Stuart, of the United States horticultural field station, Beltsville, Md. Cuttings of American holly respond readily to treatments with indolebutyric acid if taken at the time of suitable composition. This time will undoubtedly vary in different localities. Slicing the basal end of the cutting increased the extent and amount of roots formed.

"The Chemical Eradication of Lawn Weeds," by J. H. Hanley and F. F. Weinard, of the University of Illinois. Mercurated ethyl stearate is superior to iron sulphate, copper nitrate and Amo-Phos for the control of dandelion, large-leaved plantain, narrow-leaved plantain and crab grass. Three cubic centimeters per liter of kerosene, which is used as a solvent, is the optimum concentration for the average lawn.

"Present Status of Azalea Flower Spot," by Freeman Weiss and Floyd F. Smith, of the United States horticultural field station, Beltsville, Md. The northern limit of this disease is Wilmington, Del. Its attacks are limited mostly to *R. indicum*, *Kaempferi*, *Kurume* and the *mollis* types, but it has been found or artificially inoculated on *kalmia*, *R. nudiflorum*, *astrinum*, *catawbiense* and others. The method of spread and control measures have not been definitely determined.

"The Probable Effect of Peduncle Abscission on the Incidence of Die-back," by J. S. Ratsek, of the Texas experiment station. Rapid abscission of rose peduncles reduces the incidence of die-back. Factors that tend to provide a rapid supply of food to the region of layer formation increase the rapidity of abscission. Cultural methods that will increase the supply of available food will reduce the incidence of die-back.

AID NEW YORK STATION.

The fifty-sixth annual report on the work of the New York state experiment station, at Geneva, and the last report to be prepared by Dr. U. P. Hedrick, who retires as director of the station January 15, is now available for distribution.

The report covers the activities of

the experiment station for the fiscal year ended June 30, 1937, and in addition to the section dealing with the scientific work of the eight research divisions, contains a financial statement and a list of all publications prepared by members of the staff during the period covered by the report.

In view of this being his final report as director, Dr. Hedrick takes occasion to review particularly developments which have marked the nine years of his administration. One of the accomplishments that Dr. Hedrick values most highly is the marked improvement in the appearance of the station grounds made possible largely by labor supplied through various relief agencies and by generous donations of plants, trees and shrubs by nurserymen. Commenting on this, he says in part, "Primarily the desire was to make the grounds more presentable, but a secondary object, and one which has turned out to be quite as valuable as the first, was to plant trees, shrubs and flowers so that all lovers of plants and those who sell plants could come to the station to study varieties, to learn what species and varieties thrive best, and to give the plant pathologists and entomologists of the station an opportunity to study the insect pests and diseases of ornamentals."

WALNUT MAY RIVAL PECAN.

Farm-grown black walnuts and hickory nuts of the northeast may some day rival the English walnuts of the west and the pecans of the south, says Prof. L. H. MacDaniels, of the pomology department at Cornell University.

Basis for this statement is that the wild species from which the English walnut has developed bears small thick-shelled nuts that are no better, he explains, than ordinary seedling black walnuts now available.

"It has taken thousands of years of culture and selection to obtain the thin-shelled English walnuts of today. Modern methods of plant breeding may shorten the time required to obtain a superior black walnut or hickory, but progress will necessarily be slow because of the long time needed to bring a generation of seedlings into bearing. The first step in improvement is to locate the best trees which are now growing wild."

A. A. N. Progress and Problems

Review of Six Months' Activities of National Association Presented Before the Kansas City Convention by President Edward L. Baker

By way of review, I should like to call your attention to the problems that were facing the American Association of Nurserymen at the time the new executive committee took office after the annual convention in July. The three problems that, in the minds of the nurserymen who attended the convention in Chicago, were most pressing at that time were: (1) The proper classification of nursery labor under the social security act. (2) The farm forestry bill. (3) The wages and hours bill, which was at that time still pending.

The matter of proper classification of labor under the social security ruling was handled by the contact committee with the additional help of Paul Stark and Lee McClain. This committee was successful in having the ruling changed so that all agricultural labor performed on the farm was exempt. This means that no nursery labor will be subject to the social security tax providing same is performed on the farm. The committee was unable to get landscape labor exempted, although an effort was made after receiving the first ruling and another conference was held. It is the opinion of the contact committee that everything that could be gained through a test case, provided the case was successful, was gained as a result of its conferences with the social security officials.

The farm forestry bill passed both the House and Senate and was enacted as a law, but by the activities of the A. A. N., through its various committees, we have been successful in stopping the appropriation at both the regular session of Congress and last autumn during the special session. We have been invited by the forestry officials of the United States Department of Agriculture to confer with them and try to reach some grounds of mutual understanding so that we can withdraw our protest. A conference was held with them recently in Washington by members of the contact committee and another conference is to be held in Chicago next week.

The Black-Connery bill, which is

generally referred to as the wages and hours bill, was not passed at the special session or the last regular session of Congress. The bill did pass the Senate, and we were successful in having nursery labor exempted under this bill. We feel sure that a bill similar to the Black-Connery bill will be presented during this session of Congress, and this is still one of our major problems. We feel, however, that the ruling by the social security officials on nursery labor will be of great benefit to us in future legislation affecting labor of any description.

I mention the above problems to give you some idea of the many serious problems confronting the nursery business at this time. For the past several years almost everything that has been done has been, as in the case of the instances mentioned, of a defensive nature. We have been having to watch and see that no adverse legislation was passed, and we have not yet reached the point where we can have legislation passed that would be of a constructive nature to nurserymen as a whole. It is supposed that we shall soon reach that stage where we can, through our committees and through our special representative in Washington, work on constructive matters rather than have to be forever on the defense. Of course the primary objective of the association is to do those things that will be of most benefit to the members of the association and to the nursery business as a whole. It so happens that practically everything that has been done to date for the members of the association has also helped nonmembers. This will probably continue to be the case, except in some instances, as almost all legislative and quarantine matters affect all nurserymen, whether members of our association or not.

What are some of the things that can be done to benefit the nursery business as a whole and also the members of the A. A. N.? There are so many things that should be done that it is only possible to select the most important ones for consideration.

One of the most important problems is that of highway beautification. There has been a tremendous amount of money spent on highway improvement, with varying results. In some states the officials who were in charge of highway improvement have been successful, and the contracts that have been let have worked to the advantage of the state and federal governments and nurserymen. In other states, the money has not, in the minds of some of us, been spent to the best advantage. One of the great troubles is that there is a shortage of material of the type that the state landscape engineers require. It is questionable whether it is worthwhile to grow this material, as it is impossible to tell about the future program. It is the opinion of your officers that some plan can be worked out whereby stock can be purchased in advance and contracts made for a period longer than one year. If this plan is followed, it will be possible for a nurseryman to contract, either directly or indirectly, for a highway planting and then grow the stock that he has contracted for. I understand that this method is being followed in other countries.

Quarantine 37 is another one of the problems that we have forever before us. Lee A. Strong, chief of the quarantine bureau of the United States Department of Agriculture, has had conferences with various groups of nurserymen throughout the United States. It is the hope of the present executive committee, and also the desire of every member who has expressed himself, that there will be no serious change in this quarantine, which so vitally affects all of the nursery business in the United States. Mr. Strong has repeatedly warned the nurserymen, however, that we could not expect to continue the use of quarantine 37 as an economic protective measure and that the only function of the quarantine officials was to render protection against plant disease and insects that might be imported from foreign countries. Through the quarantine committee and other interested members, it is our intention to keep in close

contact with this subject and do everything possible to protect the interests of the nurserymen in the United States.

Practically all of the governmental agencies are using the grading standards of the A. A. N. There have been complaints from some of the officials that these standards should be changed or improved upon, especially in the matter of ornamentals. There is a standard committee on this work, and we hope to be able, with the assistance of our Washington representative, to work out a set of grading standards that will be acceptable to both the government officials and the nurserymen.

Time will not permit my mentioning many of the other worth-while enterprises that the association should be engaged in. The question is how best to proceed to protect our interests and also carry out a constructive program which will benefit the largest number of nurserymen.

Several years ago, it was thought by some nurserymen, both members and nonmembers of the association, that the American Association of Nurserymen should be reorganized, and there was appointed at the convention in New York in 1934, by Lester C. Lovett, then president of the A. A. N., a committee to study a plan of "revitalization of the A. A. N." This committee reported to the convention at Cincinnati in 1935, at which time some minor changes were made in the constitution and by-laws. The work of further reorganizing the association was intrusted to the executive committee, and much work was done and data were compiled during 1935-36, but the committee members were not able to report on a plan that was workable and acceptable. The committee was further instructed to work and present, if possible, a plan last year in Chicago. After many conferences and much correspondence, it was decided to recommend the adoption of a new set of by-laws to take the place of the constitution and by-laws under which the association had been previously operating. This was presented to the convention and, after being thoroughly explained, was, with the exception of a few minor amendments, adopted unanimously.

There has been much discussion and many questions have been asked

as to how the association will operate under the new by-laws. I shall try, in a brief way, to outline the major points of the new by-laws.

In order that representation be better distributed, it was decided to divide the United States into six regions. These are: Eastern, southern, central, southwestern, western and Pacific coast. There will be one member of the executive committee elected from each region, and it will be necessary to have the association hold a convention in each region as often as every nine years, provided that region requests the convention. In this way it is easy to see that the association will be thoroughly national and it will be necessary for it to move around to different regions, but at the same time it will be possible for it to hold the convention in the same region for two or even three years in succession if there is any justification for this.

Membership in the American Association of Nurserymen will be through a local, state or regional chapter. Requirements for membership in a chapter are about the same as previous membership requirements in the A. A. N. except that it is also required that in order for a nurseryman to be eligible for membership in a local, state or regional chapter, he must also be a member of the local state or regional association. This is done with the object of working in closer harmony with the local, state or regional association, as we shall in turn expect the co-operation of each one of them.

Dues are based on \$1 per thousand dollars' volume of business, with minimum dues of \$10.

The primary object of the chapters will be to elect delegates to the board of governors, each chapter being entitled to one delegate for the first \$200 and an additional delegate for each additional \$300. In order to put every delegate on the same basis so far as transportation is concerned, it was decided to pay one-half the train and Pullman fare of each delegate to and from the convention. This was done because of the fact that the convention sometimes is held so far away that it is impossible for many of the members to attend.

The board of governors is to be the governing body of the association, to elect all officers and to pass on all matters of a controversial nature.

The next question is the formation of chapters and to decide whether they should be state, local or regional. The only requirement that the executive committee will make is that each proposed chapter must include a majority or practically all of the present members now operating in the state or territory of the proposed chapter. As an illustration, it would not be practical to grant a charter for a western chapter if Kansas and Nebraska wished a separate chapter. This is a matter that must be decided by the local members of the A. A. N., as it will not be the policy of the executive committee to dictate in any way.

I believe I can speak for the executive committee in saying that, wherever practical, the members prefer that chapters be organized along state lines. The main reason for this is that they believe the smaller chapters will create more interest and have a more direct appeal than will the larger chapters. We believe that more enthusiasm can be worked up in the smaller chapters and will also be a greater help in enlarging the membership. We have adopted a proposed constitution for state or regional chapters. It is in skeleton form only and can be added to in order to meet local conditions. We also have a set form of application. It might interest you to know that there have been three charters granted for state chapters, these being for the states of Ohio, Michigan and Illinois. It is the hope that it will be possible for us to have some discussion from all the nurserymen present, whether members of the A. A. N. or not, as to the best method of procedure for the formation of chapters and whether or not it is best to apply for one regional or several state chapters.

I should not feel as though I had properly covered my subject if I did not mention the new office we have created in Washington. The executive committee met last month and appointed Richard P. White as the executive secretary, with offices at Washington, D. C. As outlined previously, there are many problems facing us, and we felt it was absolutely necessary that we have a well qualified man to serve in this capacity. We think he is particularly well equipped, having been in research work for many years and also familiar with and active in association work. He is enthusiastic about his work, and we feel he is go-

ing to be worth much to us. Some of you may probably remember him, as he was connected with the college at Manhattan, Kan., for several years. This office is in addition to that of Mr. Sizemore's and will work in cooperation with him. We shall, of course, keep our office at Louisiana, Mo., and still maintain the collection agency, freight bureau, etc.

We expect to get some criticism for spending the money that we have, but we felt that it was absolutely necessary. As most of you probably know, this office is financed out of a special fund, and we have asked that every nurseryman contribute to this in addition to his regular dues. While the response has been good in some sections, it has really been pathetic to see the response some of the nurserymen throughout the country, both large and small, have made. We are asking for an investment of \$1.50 per thousand dollars' volume. If your volume is \$100,000, your investment would be \$150. We call it an investment because we do not want you to contribute anything to the fund if you do not consider the work already done in the matter of the social security tax or the work needed to be done on the matters mentioned as good investments.

I have talked with many nurserymen throughout the United States since taking office last July and have found them to be constituted about the same. Wherever our plan has been presented in a logical manner, we have met with a good response. I feel as though I can talk pretty straight to you members of the Western association, being one of you, and I know that there are none of you that want to get a free ride in this matter. You can rest assured that the executive committee will not squander any money that is being raised.

You might be interested to know the salary of the Washington representative. We are paying him \$6,500 per year and we consider ourselves fortunate in securing the services of such a capable man at this price. Our office rent is \$900 per year, and with the addition of traveling expenses, office furniture, additional clerical help, etc., you can readily see that it will take from \$15,000 to \$20,000 to finance this office for a year. We do not have this amount on hand, but if each state comes through according to its quota, we shall be financed in great shape. Just consider the

amount that you save under the new social security tax ruling and the amount to be saved in the future, and then see if you think you can afford to be without a Washington representative.

You might be interested in knowing something of the new members that have been added to the association. There were about 256 members at the convention in Dallas; 102 were added last year, and there have been enough added since the July convention to bring the membership within a few of 500. This has been done without a persistent campaign. A careful analysis of the United States shows that there are practically 1,500

nurserymen available. This is based on figures compiled by Miles Bryant during his term of office as president. We want to take in as many members as possible, but believe that under our new plan of operation if we take in another 150 or 200 members this year, which we are almost certain to do, we shall be growing just about as fast as we feel it is practical.

After we get the various chapters operating, then we can put on a more intensive drive to double our membership and bring it up to the maximum amount.

With the many problems facing us, we should have an organization that is truly national in character.

A. A. N. Heads Meet

High Lights of Two Days' Sessions of Executive Committee Held at Chicago

The midwinter session of the executive committee of the American Association of Nurserymen was held at the Hotel La Salle, Chicago, January 9 and 10. There was a full attendance, including President Edward L. Baker, Vice-president Chet G. Marshall, Miles W. Bryant, Owen G. Wood, Clarence O. Siebenthaler, Lester C. Lovett and A. H. Steinmetz, together with the new executive secretary, Richard P. White, and also Charles Sizemore, who is relinquishing secretarial duties, but retaining the office of traffic manager and making collections for members. Other members of the association were in attendance from time to time, advising on various matters.

To arrange the program for the convention of the A.A.N. at Detroit, next July, a committee was named, consisting of Harry Malter, Monroe, Mich., chairman; Edward L. Baker, and Richard P. White. The business sessions will be held as usual on Tuesday, Wednesday and Thursday, the banquet occurring Wednesday evening. Preliminary features will be a trip on Sunday to Greenfield Village, the Ford historical museum, and a boat trip on the lake from 1:30 to 9 p.m. on Monday.

In protest against the general advance of freight rates, President Baker and Charles Sizemore appeared January 10 before the hearing of the Interstate Commerce Commission at the Morrison hotel, Chicago.

The organization of chapters is

proceeding steadily, eighteen being in process of completion now, in addition to those already granted charters. It is expected that by the time the midwinter meetings of state associations are concluded, most of the chapters will be organized.

During the meeting a conference was held by members of the executive committee in regard to the proposed farm forestry act, with E. W. Tinker, assistant chief of the forest service; G. D. Cook, chief of the private forestry division, and D. S. Olson, in charge of nursery production in the prairie state shelterbelt project. By revision of the legislation it is hoped that a project may be settled upon to carry out the forest service proposals in a manner that will have nurserymen's support.

It was reported that the Washington representative fund totaled over \$15,000, and considerably more is in view from pledges and promises. It is expected that before long these additions will make it possible to reach the goal set.

Careful attention was given to setting up the duties of the Washington office. Many projects have been outlined. Most important immediately on the list are quarantine 37, government competition, wages and hours legislation, farm forestry, soil-conservation methods, government practices in purchasing nursery stock and roadside improvement, besides matters of association organization and functioning.

Illinois Convention

Annual Meeting Draws Large Number from Points Outside and Inside State to Chicago

Reflecting improved conditions in the trade, there was a larger attendance at the twenty-second annual convention of the Illinois State Nurserymen's Association, at the La Salle hotel, Chicago, January 11 to 13, than a year ago. The representation from outside the state was of particularly good size, and to permit time for trading, the sessions of the convention were held on the afternoons of the three days.

Tuesday afternoon, January 11, those in attendance at the first session were welcomed to the city by James J. McGuire, assistant manager of the convention bureau of the Chicago Association of Commerce.

President Arthur H. Hill read his official address, in which he added his welcome to the visitors, stressed the value of membership in the association, paid tribute to the services of Miles Bryant as secretary and to Ernest Kruse in staging the trade exhibits, gave recognition to the work done by the officers in the national association, recommended support of the Washington representative and finally stressed upon his hearers the fact that they must be alert to the changes of present-day conditions in order to participate to the fullest in the bright future ahead.

In this connection, Mr. Hill said:

"In times past, the nursery business, along with practically all other businesses and industries, has been able to cover up mistakes through the happy circumstances of exceptional profits. Money has been made in the nursery business in past generations in spite of poor management, overproduction and other ills which we have always been heir to. However, the time has come when our profits will, no doubt, be on a much smaller scale. It behooves all nurserymen to understand and to apply as far as possible the handwriting which is on the wall, which will govern our future prosperity. Those individual nurseries within the industry which will profit in the future are those which are able to change their methods of operation in keeping with the times. Nurserymen must raise their standards of quality. They must not be satisfied with anything less than perfection in the quality of goods they offer for sale. The day is at hand when our customers demand and will pay only for those products which represent a fair value and give satisfaction.

"We must also constantly be on the alert to improve our standards of service. In our relations with the public we must constantly strive, by example in our own grounds, around our own buildings and in the conduct of our business affairs, to create for our business that respect which it deserves. We must be careful in the fulfillment of what the public expects from us in the way of high-grade landscape work, carrying out all promises made and conscientious efforts toward giving the fullest measure of satisfaction to our customers.

"In the operation of our nurseries it seems to me that we must now stop and take stock. In many localities we have depleted the soil, our land needs erosion-

control; it needs fertilizing; it needs a systematic and scientific start made to raise its productivity and to preserve it against future devastation.

"We need to keep a close account of our production schedule, basing our plans not upon an unfounded guess as to what we may be able to sell, but on our proved ability to sell. I realize that it is not possible to achieve this with 100 per cent results, but so as to guard our own interest and safeguard our own future profits, we must learn and learn



A. H. Hill.

quickly to gauge our production in keeping with our selling organization.

"Creating a market for our products still remains our biggest problem. We have mastered fairly well the problems of propagation, but we have made little progress in creating and maintaining our market. I have always felt that it was most unfortunate that business conditions were adverse to continuing the market development program which we had under way some years ago. In the

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absence of coöperative advertising efforts, we must as individual nurserymen do everything within our power to create interest in nursery products. Wholesale nurserymen have an obligation to fulfill along this line in assisting retailers in creating customers.

"During recent years, it is a well known fact that home building has fallen far behind the needs of our present population. It is a fact also that a great many improvements in home construction have been developed which have a tendency to outmodify many of our existing homes. I, therefore, believe that during the next ten years a building program will get under way in this country which will open an outlet for nursery products that will absorb many times more nursery stock than we have ever produced in the past. We are living in a world of change. Those ideas which we held five years ago, ten years ago or twelve months ago, we may have to give up in favor of some newer development. Let us, as nurserymen, be alert to change and strive to recognize and go with it, rather than fight against change. The whole structure of the world is in a period of transition. But do not forget that other people have the same hopes and aspirations that you do. They want peace and prosperity, and a home for their families. Do not despair of the future. So long as we have homes, we will have need for the products of the American nurseries."

The report of Arthur L. Palmgren as treasurer indicated that disbursements had been barely covered by income in the past year, receipts having been \$1,050.35 and disbursements \$1,039.25. The balance on hand was reported as \$688.44 as against \$677.34 a year ago.

George P. Ellis, of Wolf & Co., a large firm of certified public accountants, discussed fully social security and sales taxes as they affect the nursery industry. He cited various regulations as affecting nurserymen and predicted that a period was ahead in regard to the social security law similar to that in the early years of enforcement of the income tax law, when clarification will be brought about through further rulings and by treasury and court decisions. He urged that nurserymen do not request rulings, but follow their best judgment, with the advice and counsel of attorneys and accountants, rather than have set up against them a ruling on a hypothetical question. He called special attention to the fact that in Illinois, to gain exemption from the social security

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Large growers of Washington and Kansas-grown
Apple and Pear Seedlings; Portland-grown
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A. F. Lake
Pres.

Shenandoah, Iowa

R. S. Lake
Sec.-Treas.

tax, nursery workers must sign the Illinois form UCID for agricultural laborers.

National Matters.

Clarence O. Siebenthaler, past president of the American Association of Nurserymen and chairman of the Washington contact committee, thought that the title of his address, instead of "The National Outlook," might better have been "The National Lookout," as that had been the position of his committee during the past year.

Tracing the problems that had presented themselves and the work that had been performed by the A. A. N. executive committee, he stated that in the session at Chicago no fewer than twenty-one projects had been outlined for the consideration of the new executive secretary at Washington. In reference to work still to be done, he mentioned the clarification of social security legislation, not only at Washington, but in the various states. Of the latter twenty-four have ruled nursery workers as agricultural labor, twelve have the matter under advisement and those at present unfavorable to the exemption are Minnesota, New York, Montana and Louisiana.

Still to be met, he declared, is the problem of government competition. Some progress has been made in this respect in conferences with forest service officials. Another angle is the soil-conservation program, in which nurserymen have been approached for the first time to meet a mutually satisfactory arrangement.

Increased government taxes will require attention, as they will be paid by those who make no protest. Quarantine 37, wages and hours legislation and the corporate licensing act are three other important matters which will necessitate vigilance on the part of the industry in order to avoid undue hardship.

He stressed the need of meeting these problems, and since the logical attack seemed in co-operative fashion, he logically concluded that A. A. N. membership is an imperative investment for every nurseryman, large and small, for the immediate financial return that may be obtained through solution of these problems.

Inasmuch as Mr. Siebenthaler in his remarks had mentioned the other members of the executive committee and the work which they had performed during the past year, Lester C. Lovett pointed out that the modesty of the speaker had prevented his stating what Mr. Lovett believed to be the fact, that Mr. Siebenthaler's personal efforts during the past year had been the greatest of all.

The session concluded with a short talk by Richard P. White, newly appointed Washington representative and executive secretary of the American Association of Nurserymen, who expressed himself as ready to serve every member of the association as soon as the office was organized at Washington, quarters having been established there as of January 1.

Address by Lee A. Strong.

Opening the Wednesday afternoon session, Lee A. Strong, chief of the federal bureau of entomology and plant quarantine, appeared on invitation of the officers of the Illinois association to talk about quarantine 37. He repeated some of the statements he had made in

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Evergreen Shrubs
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Small Fruits
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Bedding Plants
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Complete Nursery Supply

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his address before the A. A. N. convention at Chicago last July, particularly as regards his opinion of a public hearing. Instead of holding a hearing, he said he had been going around the country talking to nurserymen's meetings in order to point out to them the present status of quarantine 37 and induce them to work with him in putting it on a proper basis.

He relieved nurserymen's minds on two or three things. In reference to fruit stocks, he said that they had been denied entry under quarantine 37 because of the pest risk involved, and as they were one of the few items with that background, there is small possibility that a change would be made in that regard. Plants carrying soil will not be allowed entry, and those who fear importations of blue spruce would find their answer there.

He felt, however, that there was inconsistency in admitting the entry of rose stocks and restricting the importation of new varieties of rose plants. The bulb situation he regarded as especially open to question, as narcissus bulbs are allowed entry only if sterilized, whereas hyacinth bulbs were not subject to that treatment, although they carry a nematode whose difference is not discernible, though it has been maintained by some that the nematode on one type of bulb is not transferred to the other genus. Like-

wise he could not reconcile with that condition the reduction of importation limits on iris bulbs to 300 and the fact that gladiolus bulbs are kept out despite the fact they are freer of insects and diseases than most other bulbs.

Mr. Strong declared that plant quarantine 37 should not be considered as an economic embargo, but as a quarantine measure to keep out insects and diseases. He asserted that nurserymen and plant growers do themselves an injury if they insist on a procedure that is contrary to fair and just enforcement on a quarantine basis. He thought that by talking it over with the nurserymen, it would be possible to work out a quarantine on a sound basis, and he asserted that nurserymen should help to that end.

Feeding Trees.

Relating results of tests at the Missouri Botanical Garden, St. Louis, on the feeding and care of shade trees, August P. Beilmann presented some slides and a short motion picture. The Missouri Botanical Garden found that some of its large shade trees were suffering from starvation and undertook to measure food requirements. As a general conclusion, a deciduous tree which failed to show growth of eight inches annually on the terminal shoot was considered deficient in nutrition. Of course, some

species do not make that much growth normally, and in those instances leaf color and bark condition give clues as to starvation or the contrary.

Tests were made with quickly available commercial fertilizers, a complete form being preferred, generally 10-8-6. Such feeding should be considered as supplementary to ordinary nursery practices, such as green manuring. Quickly available fertilizers were used in the Missouri garden project for the sake of measurement, but it was demonstrated that such feeding continued its effect five years after application, the plant food being partly stored in the soil and partly in the trunks of trees. Application is under the plant branch tips and is considered most effective if put some distance under the soil.

The crowbar method was considered slow, since the soil about the hole is likely to be packed, and the transmission of the fertilizing element to the surrounding soil is thereby delayed. The water needle depended so largely upon the success of the operators that a water gun was devised. A 3-inch rod is pressed into the ground, a load of fertilizer is injected into the gun and the water is turned on from a spray tank, under 100-pound pressure. About two gallons of water are required for each pound of fertilizer. Feeding is done early in spring. The height and branch spread of the trees in feet are added together and to this sum is added the circumference of the tree in inches. The total is considered the number of pounds necessary for proper feeding. If the tree is not badly starved, one-half that amount may be employed, and still less on evergreens. The water gun used for tree feeding was devised at the garden and is not patented; a blue print may be obtained by nurserymen interested by application to Mr. Beilmann at the Missouri Botanical Garden, St. Louis, Mo.

The session was concluded with a talk by John Van Gernert, propagator at the Morton Arboretum, Lisle, Ill., on new varieties of plants. He noted a considerable list and commented in a few words on each.

Luncheon Session.

The final session, January 13, began with a luncheon and was held in the Red room. J. H. Lloyd, director of the Illinois department of agriculture, delivered an address on the work of the department, particularly as it affects the nurserymen of the state, chiefly through the division of plant industry, of which L. A. Moore is superintendent, at Springfield, and the plant inspection service, of which H. F. Seifert is chief with headquarters now at Glen Ellyn. Both Mr. Moore and Mr. Seifert were also guests at the luncheon. The chief plant inspector's office was moved from Urbana to Glen Ellyn a few months ago, because eighty-five per cent of the nurseries of the state are located within seventy-five miles of Chicago.

Some of the work accomplished was reviewed by Mr. Lloyd, one of the most important being the removal of old and abandoned orchards in the southern part of the state through W. P. A. workers. Nearly a million old trees have been removed to date, thus lessening sources of infestation and disease. The policy of the Illinois authorities has been one of control, rather than of quarantine.

The other speaker of the afternoon was Alfred C. Hottes, associate editor of Better Homes and Gardens, who

dwell on the attitude of nurserymen toward their customers. He declared certain styles of planting were outmoded and thought nurserymen should dwell more on the topic of bringing home appearances up to date in talking to customers. He recommended that each nurseryman ascertain what is the most popular price at which his customers buy and make offers accordingly, to take advantage of customers' habits. Price as a basis of sales appeal he deplored, believing that the ultimate picture to be created deserved most emphasis in selling nursery stock. His illustrations were quite to the point, and he received hearty applause.

The convention closed with a brief business session, at which were received reports of committee chairmen as follows: Legislative, Elmer L. Clavey; auditing, William B. Hagen; resolutions, William A. Beaudry; state highway, Arthur L. Palmgren; nominating, Arthur Schroeder.

The report of the nominating committee was adopted, reelecting the present officers: President, A. H. Hill; vice-president, Ernest Kruse; treasurer, Arthur L. Palmgren; secretary, Miles W. Bryant. Hubert Nelson was reelected to the board of directors, and to serve also for two years on the board Richard Theidel, of the Hinsdale Nurseries, was chosen.

Convention Notes.

Sixteen out of the twenty-one active Illinois A. A. N. members met January 12 to organize the state chapter. Officers chosen were the same as those of the Illinois State Nurserymen's Association, and a committee was formed to draw up by-laws, consisting of Miles Bryant, Hubert Nelson and Charles Fiore.

Born January 2, while he was on a business trip to Mexico, Lou Ella Baker received a brief visit from her father, Edward L. Baker, Fort Worth, Tex., president of the American Association of Nurserymen, before he left for the convention of the Western Association of Nurserymen and then for the executive committee meeting and Illinois convention at Chicago the past week.

Gerald Nelson, of Swain Nelson & Sons Co., Glenview, Ill., was kept away from the convention by the removal of his appendix January 5. Hubert Nelson reported his brother recovering rapidly.

Henry Chase, of the Chase Nursery Co., Chase, Ala., came up from Florida for the convention. After straightening up things at the office for a week, he will go back to Miami for another ten

days. Lester C. Lovett, Little Silver, N. J., expects to leave for Florida within the next week. Arthur L. Palmgren, Glenview, Ill., and his father are in Florida now.

A. F. Watkins, who purchased the interest of his partner in the Dixie Rose Nursery, Tyler, Tex., May 1, 1937, has a family organization ready to go places. His son, John C. Watkins, 21 years of age, will handle public relations while his father returns to the supervision of field operations. Another older son may leave the oil business to assume office management. Two sisters of A. F. Watkins are going to be of material assistance in the retail department, Miss Alvina K. Watkins having had years of experience in retail merchandising in New York city, and Miss Olive Watkins, an artist, being able to turn out reproductions of roses in color.

Trade Exhibits.

The quarters on the mezzanine floor of the Hotel La Salle were so arranged that entry to the meeting room was through an exhibition hall in which were set up trade exhibits as in former days. Exhibits included the following:

Naperville Nurseries, Naperville, Ill.—A considerable assortment of balled and burlapped evergreens and deciduous shrubs and small trees, including nine varieties of hawthorn.

Jackson & Perkins Co., Newark, N. Y.—Small specimen evergreens in balls.

Kallay Bros., Painesville, O.—Specimens of Kallay's compacta form of Fitzer's juniper.

Verhagen Nursery Co., Scottsville, Tex.—Small specimen evergreens in balls and color plates of roses.

Cole Nursery Co., Painesville, O.—Plants and photographs of Truehedge columnberry and a Cole tree digger.

A. M. Leonard & Son, Piqua, O.—Nursery tools.

Bay State Nurseries, North Abington, Mass.—Evergreens in balls.

Garden Shop, Kansas City, Mo.—Evergreen carrier and photographs and moving pictures of tree-moving equipment.

Frost's Nursery Co., McMinnville, Tenn.—Samples of an extensive line of fruit trees and deciduous trees and shrubs.

Mount Arbor Nurseries, Shenandoah, Ia.—Fruit trees, fruit tree seedlings and shrubs neatly arranged in bins.

Pacific Coast Nursery, Portland, Ore.—Fruit tree seedlings shown by John Holzman, and Eddie's roses and Cloverset pots sold by F. A. Wiggins, of the Washington Nursery Co., Toppenish, Wash.

George B. Carpenter & Co., Chicago, Ill.—Roses and twines.

T. G. Owen & Son, Columbus, Miss.—Small evergreens in balls and packages of evergreens for lining out.

D. Hill Nursery Co., Dundee, Ill.—A resting place to examine "Hill's Evergreens."

B. F. Conigolsky, Peoria, Ill.—Color plates.

Illinois Department of Agriculture—Specimens of leaves and twigs showing the effects of insect pests and diseases, also specimens showing nursery operations, such as budding.

THE Griffin & Hodge Nursery, La Jolla, Cal., has moved to a new location at 1237 Prospect street.

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Caledonia	Lucie Marie	Sunkist
Columbia	McGredy's Scarlet	Syracuse
Condesa Sastago	Margaret McGredy	Talisman
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Edith N. Perkins	Mrs. John Bell	And many others

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Low budded on Multiflora understock. Handled and graded with utmost care. Popular varieties. Three grades. **WRITE FOR LIST.**

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New Rose TEXAS CENTENNIAL

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Plant Patent No. 162

Ask for color illustration
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Largest Fruit Tree Seedling Growers
In America.

We accept growing contracts for 3 to 5 years.
Quality stock. References on request.
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 **Twenty Million
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Complete list of all the new varieties.
We furnish packing out service
for nurserymen and seedsmen.
Write for wholesale price list.

E. W. TOWNSEND SONS NURSERIES
Salisbury, Maryland

FORMING EASTERN CHAPTER.

Members of the American Association of Nurserymen from New York, Pennsylvania and New Jersey met at the Hotel New Yorker, New York city, January 6, to confer in regard to the formation of an eastern chapter of the national association. The plan for organizing a chapter along the lines of the Council of Eastern Nurserymen will not be carried out inasmuch as the members in New England desire to form a separate chapter for that region.

As the group at New York was merely a voluntary conference, it was decided to ask the A. A. N. members in the respective states to choose authorized delegates to be present at another meeting in New York, February 14, to complete the chapter organization. By that time it will be known whether the three areas will combine or whether separate groups will apply for chapters in this territory.

ORNAMENTAL GROWERS MEET.

The Ornamental Growers' Association held a meeting in New York city, January 5, for the consideration of usual matters coming before the group. In addition, it was decided to undertake a study of balled plants, to determine the average amount of soil taken up in proportion to the size of trees. It is expected that this information may be helpful in government specifications, as well as in nursery practices.

LAKE COUNTY MEETING.

The Lake County Nurserymen's Association met at the Parmly hotel, Painesville, O., Wednesday evening, January 5.

Arrangements were made to have a two-day nursery school February 22 and 23, with the assistance of Glen Haskins, the county agricultural agent, and Prof. L. C. Chadwick, of Ohio State University. One of the high points of this school is to be a dinner-dance on the evening of February 22.

Another important matter discussed at the meeting was the proposition presented to the association to coöperate with the Better Business Board of Painesville and other organizations, to develop an annual nursery and flower exhibit to make the world conscious of Lake county's leading industry. Because Lake county is the largest nursery center in the United States, with the proper co-operation of all local organizations, the project could be developed into the largest nursery and flower exhibit the country has ever known.

D. E. Cone, Sec'y.

FOREST BUYS OUT HENEGAR.

The Forest Nursery Co., of McMinnville, Tenn., announces the purchase of all the growing nursery stock of the Henegar Nursery, McMinnville, consisting of approximately sixty acres of ornamental shrubs, shade trees, evergreens, roses, vines, etc. This stock will be used to supplement the company's own stock and will give it a larger supply to take care of the increasing demands which it is enjoying. The company will have three years to move the stock and will continue to do some propagating at the nursery during this year and maintain a regular working crew in the nursery to take care of the growing stock.

ESPECIALLY ATTRACTIVE PRICES

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In extra fine sweet cherry, apple, Bartlett pear, prune, plum, peach, apricot and almond.

Also extra fine Chinese Elm, Arizona Ash and California Black Walnut seedlings.

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To the Trade Only

A complete line of
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Wholesale Only

Our usual line of quality nursery stock, including Shade and Flowering Ornamental Trees and Specialties, Fruit Tree Seedlings and Roses.

Grown Right and Packed Right

A card will bring our list of items
that will make you some money.

MILTON NURSERY CO.

Milton, Oregon

"Pioneer Nursery of the Northwest"

Fruit, Shade, Flowering and Ornamental Trees. Fruit Tree and Chinese Elm Seedlings. Car lot advantages to all points east.

Send for our Trade List.

ORENCO NURSERY CO.

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Very complete line of quality stock

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Meet at Kansas City

Interesting Program Features Western Association Convention, Accompanied by Two State Meetings

With a registration of approximately 100 members, the forty-eighth annual meeting of the Western Association of Nurserymen, held at the Hotel Muehlebach, Kansas City, Mo., January 4 to 6, was one of the most interesting gatherings of the organization in recent years. Fewer visitors than usual attended. The members were on hand for every session and remained to hear matters of much interest discussed by able speakers. The retail nurserymen held an executive meeting in the Trianon room of the hotel Tuesday afternoon, January 4. E. H. Smith, York, Neb., chairman, presided. Paul Stark, Louisiana, Mo., who was to have spoken on "Tax Legislation as It Applies to the Nursery Industry," at the general session, January 5, was unable to remain more than one day. He presented his subject to the retail group and it was discussed at great length.

At the opening of the Western meeting Wednesday morning, January 5, President C. C. Smith, Charles City, Ia., made his annual address. He was optimistic over the future of the nursery business in spite of the drought and other severe setbacks of the past few years and held much encouragement for the enlargement of the business.

President Smith's Address.

In his address, Mr. Smith said:

"Reports from different sections of the central west show a good increase in nursery sales during the year of 1937, in spite of a slight falling off during the late months of the year. I am just optimistic enough to dare to predict that the year of 1938 will bring the nursery industry better profits than we have enjoyed during any of the past six years.

"Building contracts awarded in the United States in the first eleven months of each year show that the year of 1937 was larger than any year since 1931, and had it not been for rising construction costs during the last half of 1937, the record for the past year would have equaled the banner year of 1928.

"President Roosevelt recently outlined a plan encouraging the building of between 600,000 and 800,000 new homes during the next few years. Think of the market these new homes make for the nursery industry! Suppose we only sell 300,000 new home owners an average of \$50; this would mean a total of \$15,000,000 of new nursery sales.

"There are other good markets developing for our nursery products. Park boards and cemetery associations generally have money lying idle, perhaps drawing a low rate of interest. These people can now be sold nursery stock in large quantities. Many new public schools, courthouses and college additions have been built with aid of P. W. A. All of these new buildings are prospects for extensive landscape plantings. State roadside plantings will continue and will use large quantities of more or less surplus items.

"Our banks are in sound condition.

Depositors are not worrying about losing their money. The rate of interest paid on deposits is less than in former years, but this should help the stimulation of more investments in building.

"The farm situation is strong in contrast to that in recent years, with ten per cent gain in farm income in the first ten months of 1937 over the same period in 1936. To some nurseries the farm trade is not a large factor, but to many other nurseries the farm trade means the difference between loss and gain for the year.

"Just a few words about sales and service. Modern railroad travel has now gone streamline. I am wondering if we, as nurserymen, cannot 'streamline' our sales and service program. There are at least five selling appeals that make us ride these streamline trains—comfort, speed, pride, safety and economy. Think this over when you get home, and I am sure you can easily work out a plan to 'streamline' your sales and service."

George W. Holsinger, secretary-treasurer, made his annual report for the twenty-second consecutive year and read the minutes of last year's meeting.

Roll call, introduction of members, applications for membership, presentation of new members, brief trade reports from the sections represented and the appointment by President Smith of temporary committees completed the morning's work. The afternoon meeting opened with a motion by J. Frank Jones, Lawrence, Kan., to amend the by-laws so that the initiation fee might be reduced from \$10 to \$5. This was carried by a vote of twenty-one to six.

Then followed a lengthy discussion of "Legislation Relative to Government Competition," led by C. G. Marshall, Arlington, Neb., vice-president of the American Association of Nurserymen. Mr. Marshall reviewed briefly the shelterbelt program which was sponsored by the government as a drought relief measure, the appropriation by Congress to liquidate the project, the Norris-Jones bill, the Norris-Doxey bill and the co-operative farm forestry act. Other

measures introduced at the last session of Congress were mentioned by Mr. Marshall and the relation of commercial nurserymen to these proposed bills was clearly presented.

Conservation Act.

T. Russell Reitz, Manhattan, acting state director of the United States forestry service in Kansas, gave a short talk on the agricultural conservation act. A program is being worked out, he said, in which separate states can adjust some of the requirements of the act to their own needs. The soil-conserving goal will operate for the benefit of the farmer. Those who comply with the requirements of the act will be allowed \$10 per acre for each acre planted. Trees to be planted must be purchased from commercial nurserymen, they must be cared for and the ground must be cultivated by the farmer in order to make him eligible for benefits. The national docket now being worked out, Mr. Reitz said, is a good document. Information on the proposed program will be disseminated through farm bureaus and the state agricultural conservation committee will handle the matter.

Charles Williams, of Williams & Harvey Nurseries, Kansas City, Mo., showed a 10-minute film in which a 30-foot Chinese elm tree was moved early last July. The 5-foot ball of earth, weighing two and one-half tons, was covered with burlap and the tree was raised by cable to a truck, moved to the lawn of a new home and replanted.

Kansas Association Meets.

At the close of the afternoon program, a meeting of the Kansas association was

Selected English and Dutch

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For grafting and budding

Fine stock of

MULTIFLORA JAPONICA

Dutch-grown, rooted cuttings

Ask for our reasonable prices

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Rose Grower

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APPLE TREES

Very vigorous well branched 2-year stock

	1/2-in.	1 1/2-in.	2 1/2-in.	3 1/2-in.
Black Ben Davis	12c	15c	18c	21c
Ben Davis (red)	258	386	100	240
Blood Red Delicieux	587	4143	5070	1182
Early Red Bird	...	538	1840	322
Jonathan	...	3149	2420	328
Mammoth Black Twig	110	439	1149	1659

We will exchange for lining-out stock in Evergreens, Shrubs, Perennials and Bulbs. Write to us and let us know what you have to offer.

BENTON COUNTY NURSERY CO., INC., Rogers, Ark.

JACKSON & PERKINS COMPANY

Wholesale Nurseries
NEWARK, NEW YORK STATE

SHADE TREES

	Per 10	Per 100
Ash, Am. White, 10 to 12 ft.	\$7.00	\$60.00
Ash, Am. White, 10 to 12 1/2 in. cal.	10.00	90.00
Chestnut, Burm., 5 to 6 ft.	7.50	65.00
Elm, American, 10 to 12 ft.	7.50	65.00
Elm, American, 1 1/2 to 2-in. cal.	9.00	80.00
Elm, American, 2 to 2 1/2-in. cal.	12.50	115.00
Flowering Crab, 3 to 4 ft.	4.00	...
(Eleyl, <i>Floribunda</i> , <i>Hopu</i> , <i>Sargentii</i>)		
Japanese Cherry, 2 to 4 ft.	7.50	65.00
Japanese Cherry, 4 to 5 ft.	8.50	75.00
Jap. Weeping Cherry, 1-yr., 6 to 8 ft.	13.50	125.00
Maple, Norway, 3 to 10 ft.	8.50	85.00
Maple, Norway, 10 to 12 ft.	11.00	100.00
Maple, Norway, 2 to 2 1/2-in. cal.	10.00	90.00
Oak Pin, 2 to 3-in. cal.	25.00	...
Oak Pin, 2 1/2 to 3-in. cal.	40.00	...
Pine, Oriental, 2 1/2 to 3-in. cal.	20.00	...
Poplar, Lombardy, 6 to 8 ft.	2.50	20.00
Poplar, Lombardy, 8 to 10 ft.	3.00	25.00
Poplar, Lombardy, 10 to 12 ft.	4.00	35.00

Write for prices on other varieties and sizes.

WAYNESBORO NURSERIES, INC.

Waynesboro, Virginia

APPLE TREES

We offer to the trade an extra-fine lot of 1-year Apple Trees; all grown from Whole Root Grafts. A complete list to select from. This stock is unusually vigorous and strong. Your customers will like these trees.

Send us your list of requirements for special booking prices.

E. W. Townsend Sons Nurseries
Wholesale Dept.
Salisbury, Maryland

LINING-OUT STOCK

Complete list of deciduous lining-out stock this year.

Place your order now for Spring shipment, and avoid disappointment when wanted.

THOMAS B. MEEHAN CO.
Dresher, Pa.

PRIVET and BERBERIS

Splendid Stock

Write for Special Quotations

LESTER C. LOVETT

Milford Delaware

Ampelopsis Veitchii Forcing Roses

Barberry Thunbergii

And Complete Line of Nursery Stock

C. R. BURR & COMPANY, Inc.
Dept. A—Manchester, Conn.

Canterbury Boxwood

Buxus suffruticosa and *B. sempervirens*.

Selected uniform plants; bushy and foliated to center; masses of fibrous roots. Finished specimens from 4 inches up, ready for quick shipment. Prices lower, plants larger. Ask for special list.

CANTERBURY, Box A, Easton, Md.

held. Ralph Ricklefs presided. J. Frank Jones, Lawrence, secretary-treasurer, read the minutes of the meeting held January 16, 1936. Harold S. Crawford, Ottawa, Kan., told of the school for nurserymen held recently at the state college, Manhattan, Kan. This event was well attended and it was considered of much value to the members. Harold S. Crawford, J. Frank Jones and William Griesa, Lawrence, were re-appointed to arrange for another school, the time to be decided by the executive committee of the association. A motion was made and carried that a membership committee be appointed. Harold S. Crawford was named chairman, with C. D. Wagoner, Hutchinson, and Ralph Ricklefs, Salina.

The election of officers resulted in the reelection of Ralph Ricklefs, Salina, president; C. D. Wagoner, Hutchinson, vice-president, and J. Frank Jones, Lawrence, secretary-treasurer. The following were reappointed members of the executive committee: Harold S. Crawford, Ottawa; George Chandler, Kansas City, Mo.; Ralph Skinner, Topeka, Kan.; W. S. Griesa, Lawrence, and A. B. Matzeder, Leavenworth.

Missouri Group.

A meeting of the Missouri association was held in the Hotel Muehlebach Wednesday evening, January 5. W. A. Weber, Afton, Mo., secretary-treasurer, reported that the lien law on which the association had been working for several years was killed in committee at the last session of the state legislature. Mr. Weber had done considerable work in favor of this measure. Its failure to pass, he said, may work a hardship on nurserymen in some cases.

The association elected these officers for the year: President, George Chandler, of the Chandler Landscape & Floral Co., Kansas City, Mo.; vice-president, Kenneth Hayster, of Ernest Hayster & Son, Cloverset Flower Farm, Kansas City, Mo., and secretary-treasurer, W. A. Weber, Afton, Mo.

This association decided to make application for a charter in the new set-up of the American Association of Nurserymen. Enough signatures were supplied to file the application and more will be secured later, it was announced.

Hear A. A. N. President.

A social meeting was held Wednesday evening, when Tom Collins, Sunday editor of the Kansas City Journal-Post, entertained the guests with an address.

E. L. Baker, Fort Worth, Tex., president of the American Association of Nurserymen, read a paper on "American Association of Nurserymen—Its Future Form and Objective" January 6. It is published in this issue.

In response to questions from the floor, Mr. Baker submitted a blank form of charter application. He suggested that chapters be formed in states. These will not take the place of nor interfere with present organizations. Representatives of these chapters will form the board of governors of the American Association of Nurserymen. It is not necessary to have the signatures of all members of any state association in order to file a request for a charter. Applications are filed with the national association and charters are granted after due consideration. President C. C. Smith of the Western association handed Mr. Baker an application for an Iowa chapter which had

20,000 ELMS, American, Vase, Moline, up to 4 inches, transplanted.

4,000 MAPLE, Norway, up to 2 1/2 inches, transplanted.

2,000 WILLOW, Thurlow, 8 to 10 ft. and 10 to 12 ft.

10,000 SPIRÆA, Vanhouttei, 3 to 4 ft. and 4 to 5 ft.

Send for list on many other items.

C. M. HOBBS & SONS, Inc.
Bridgeport, Indiana

Largest Nursery in Indiana. Established 1875.

BARBERRY THUNBERGII
SEEDLINGS

1-year

6000, 3 to 6 ins. 8000, 6 to 9 ins.

25,000 Ampelopsis Veitchii, 1-year seedlings

2,000 Ampelopsis Veitchii, 2-year transplants

Asparagus, Pedigreed Washington, 2-year

Hydrangea Pee Gee, 3 to 4 ft. and 4 to 5 ft.

T. B. WEST & SON
Maple Bend Nurseries Perry, Ohio

BOBBINK & ATKINS

Nurserymen

Rutherford, New Jersey

Request our catalogues describing the uncommon in nursery items.

LINING-OUT STOCK

Connecticut Valley Grown
Seedlings - Rooted Cuttings

Evergreen and Deciduous

Write for list

C. E. WILSON & CO., INC.
Manchester, Connecticut

PRINCETON NURSERIES

of PRINCETON, N. J.

SUPERIOR
Hardy Ornamentals

HILL'S EVERGREENS

Complete assortment of lining-out sizes

Also larger grades for landscaping

Send for our wholesale catalogue

D. HILL NURSERY CO.

EVERGREEN SPECIALISTS

Largest Growers in America

Box 402 DUNDEE, ILLINOIS

six signatures. Mr. Smith said Iowa had fourteen members in the association.

"Advertising" was the subject of a rapid-fire talk by Olaf Soward, radio commentator of the Kansas City Kansas, published in this issue.

Dr. L. C. Heckert, professor of chemistry and chemical engineering at Pittsburgh Teachers' College, Pittsburgh, Kan., addressed the convention on "Chemistry and Horticulture." His talk was extemporaneous and dealt with the chemical reaction of some plants to various elements in the soil.

R. I. Throckmorton, agronomist in charge, Kansas State College, Manhattan, Kan., read a paper on "Rejuvenation of Nursery Soils."

Reports of committees were called for. The committee on resolutions, of which E. H. Smith, York, Neb., was chairman, commended President C. C. Smith for what was termed his "streamline" address and good advice; thanked Secretary George W. Holsinger for his twenty-two years of service, and recommended that Congress be asked to make a larger appropriation for weather bureaus so that the service may be extended as it is to air lines.

A. J. Bruce, Des Moines, Ia., chairman of the obituary committee, reported the death of several members in the past year and requested the delegates to stand a few moments to honor their memory. This was done.

New Officers.

C. G. Marshall, Arlington, Neb., chairman of the nominating committee, submitted the following names, which were voted on and declared elected: Charles Williams, of the Williams & Harvey Nurseries, Kansas City, Mo., president; Ralph Ricklefs, manager of the Kansas Landscape & Nursery Co., Salina, Kan., vice-president, and George W. Holsinger, of the Holsinger Nursery Co., Kansas City, Kan., secretary-treasurer.

President Smith thanked the members of the committees for their efficient work and announced the applications of six new members. He then introduced the new members and Charles Williams, newly elected president, took the chair which Mr. Smith vacated after some complimentary remarks from his successor. President Williams appointed Harold S. Crawford, Ottawa, Kan.; E. H. Smith, York, Neb., and J. J. Pinney, Ottawa, Kan., the membership committee. He reappointed the obituary committee and named George Chandler, Kansas City, Mo.; George Welch, St. Joseph, Mo., and Ross Minnick, Kansas City, Mo., the program committee. Harley Deems, Charles City, Ia., and J. Frank Sneed, Oklahoma City, Okla., were elected the new members of the executive committee.

The last order of business was a motion by Jim Parker, Tecumseh, Okla., that the Western Association of Nurserymen restore a practice of some years ago, that of issuing a bulletin of excess surplus stock which members may have for sale. This motion was discussed and lost on the vote. President Williams appointed Mr. Parker; George Marshall, Omaha, Neb., and J. Frank Sneed, Oklahoma City, Okla., to consider the matter further and report at next year's meeting. The convention then adjourned.

Displays of nursery stock and supply to evergreens and other nursery stock. Lines were arranged in a room adjoining that in which the convention was held. Those who had exhibits were:

Thompson-Hayward Chemical Co., Kansas City, Mo.

Willis Nursery Co., Ottawa, Kan.

Chandler Landscape & Floral Co., Kansas City, Mo.

Cloverset Flower Farm, Kansas City, Mo.

Parker Nursery & Orchard Co., Tecumseh, Okla.

Myers Spray Rigs, sold by Kansas City Pump Co., Kansas City, Mo.

House of Gurney, Inc., Yankton, S. D.

KANSAS NEWS NOTES.

Wilbur Wahl, formerly with the Kansas state highway commission, has established a retail nursery and landscape business at Chanute, Kan. It is his plan to develop his business not only in Chanute, but also in the near-by towns. Mr. Wahl is a graduate of the Kansas State College course in landscape gardening.

The Williams & Harvey Nurseries, Kansas City, Kan., are completing the landscaping of the extensive grounds around the new \$2,000,000 Wyandotte high school. They were awarded the contract last fall for approximately \$20,000. Hare & Hare, Kansas City, Mo., were the landscape architects.

George Duey, of the Heart of America Nurseries, Overland Park, Kan., has purchased five acres of land on Seventy-fifth street, adjoining the present nursery. A new and impressively landscaped entrance to the nursery is being constructed on this land. The remainder of the new purchase will be planted

Displays of nursery stock and supply to evergreens and other nursery stock.

Mr. Duey reports business good.

Carrying out its program of expansion, the Barber Nursery Co., Topeka, Kan., has acquired the services of Vernon Masters to develop its landscape business. Mr. Masters is well qualified for this task, holding a degree in landscape gardening from the Kansas State College and having had extensive practical experience with the Kansas state highway commission, with the federal government and in private practice. Last autumn the Barber Nursery Co. built an addition to the offices and storage building, doubling its capacity. This firm, which started only a few years ago, has become one of the best known nurseries in Kansas.

A new landscape organization is being developed at Topeka, Kan., by Ralph W. Smith, formerly with the Kansas Evergreen Nursery, Topeka.

Hayde Bros., Kansas City, Mo., recently completed planting the grounds of the city's new skyscraper city hall. This firm also sodded the city hall grounds and, in spite of the fact that the work was done during the hottest part of the summer, the work was so successful that a beautiful green lawn was ready for the opening of the building in September. Established less than a year ago, Hayde Bros. have already developed a good trade, not only in yard sales, but also in landscape planting and lawn building. The firm consists of Stephen C., Joseph E., William F., James R. and J. C. (Jack) Hayde.

J. J. P.

Our Specialty

Hand-picked

COLORADO BLUE SPRUCE SEED

from bluest trees.

Also complete line of Evergreen and Deciduous tree seeds from all over the world.

Ask for price list.

THE BARTELDES SEED CO.

Denver, Colorado

EVERGREEN SEED

For BEST results plant Colorado Blue Spruce seed. From the BLUEST of the BLUE trees. We can supply NEW CROP seed from selected trees only, at \$3.50 per lb. Prepaid.

Dwarf Yucca Glauca, NEW SEED, at 75¢ per lb. A good Rock Garden Plant.

Rocky Mountain Evergreen Co.
Evergreen, Colorado

Cherry Laurel and Nandina Seed

Nandina seed (berries), \$1.00 per lb.
Cherry Laurel seed (berries), 25¢ per lb.
New crop.

Fruitland Nurseries Augusta, Ga.

CHINESE ELM

ULMUS PUMILA (Northern Strain)
Hardy Northern Type—Mature stock, power dug. Immediate or later shipment.

Write for prices.

TOLLESON NURSERIES Denver, Colo.

EVERGREEN SEED

Juniper Spiculifera, western berries. Trial Pkt. 25¢; 1 lb. \$4.10; 5 lbs. \$5.10; 10 lbs. \$9.75, prepaid. 50 lbs. or more, 75¢ per lb. collect.

Gold Medal Hybrid Delphinium seed. On. \$1.00; 4 oz. \$3.00. Trial pkt. 50¢. Prepaid.

SWEDBERG NURSERY, Battle Lake, Minn.

SHADE TREE SPECIALS

American Linden, 6 to 8 ft. and up
 American Elm, 8 to 10 ft. and up
 Sugar Maple, 6 to 8 ft. and up
 Niobe Willow, 4 to 5 ft. and up
 Lombardy Poplar, 5 to 6 ft. and up

Write for special low quantity prices.

SHERMAN NURSERY CO.
 Charles City, Iowa.

(Growers of Evergreen Liners,
 Shrubs, Phlox and Shade Trees)

1887

1937

OUR GOLDEN
 ANNIVERSARY

We offer for Spring 1938 our usual
 line of

SHRUBS EVERGREENS
 FOREST AND SHADE TREES
 VINES AND CREEPERS
 NATIVE PLANTS

Write for Trade List

FOREST NURSERY CO., INC.

J. R. Boyd, Pres. McMinnville, Tenn.



EVERGREENS

For Seventy-four years
 growers of Quality Evergreens
 Lining-out Stock a Specialty

Write for Trade List

EVERGREEN NURSERY CO.
 Established 1864 : STURGEON BAY, WIS.

MOUNT ARBOR NURSERIES
 E. S. Welch Est. 1875 Shenandoah, Iowa

A COMPLETE LINE OF GENERAL
 NURSERY STOCK—ASK FOR TRADE LIST

Send us your WANT LIST for quotations
 "One of America's Foremost Nurseries"

THE WESTMINSTER NURSERIES
 WESTMINSTER, MARYLAND

Fruit and Shade Trees, Evergreens, Shrubbery,
 all sizes up to 7 ft. California Privet, 3 to 7
 ft., in grades. Heather, assorted, 8 to 18-in.
 clumps. Evergreen Privet and Barberry, Peren-
 nials, etc.

We have a very complete line. Trade list sent
 on request.

BOYD NURSERY CO.

We are located at the home
 of rare Mountain Trees, Shrubs and
 Hardy Ferns.

Lining-out stock.
 Trees and Shrubs.
 Write for trade list

McMinnville, Tenn.

LOMBARDY POPLAR — 5 to 6, 6 to 8, 8 to 10 ft.

HARDWOOD CUTTINGS—Pieris, Lilac, Leon-
 icera Morrowii, Lonicera tatarica, Forsythia
 Fortunei, Cornus sibirica, Spiraea Vanhouttei,
 Philadelphus, Viburnum, Smilax africana, Lem-
 bardy poplar and many other varieties.
 We have a large supply of exceptionally fine stock
 and will quote very low prices on any cuttings
 on trees you may need.

BYRD NURSERIES, INC.
 6901 Dodge St. Omaha, Neb.

NORTH JERSEY METROPOLITAN.

At a meeting of the executive committee of the North Jersey Metropolitan Nurserymen's Association, January 10, at the Passaic county courthouse, an educational program was worked out for the benefit of nurserymen in the metropolitan area. The first lecture was given January 13, by Ben Blackburn, our landscape specialist at New Brunswick, on foundation plantings. January 27 there will be a lecture at the Passaic county courthouse, on keeping records, inventory and the outlook for 1938. The following lecture after that will be held in Essex county; the place and the subject will be announced at the January 27 meeting. The members wish all the nurserymen in the metropolitan area would attend these lectures, for they deal with advanced material that would only benefit nurserymen.

At the executive committee meeting, the application of Charles Ur, of the Maple Grove Nursery, Montville, N. J., was accepted. It was decided to form an additional committee of eight members to assist the publishing committee in compiling material for Garden Craft, which has met with great success in its first year.

A resolution was passed that the association urge the county agents in the metropolitan area to get the interest and cooperation of the authorities of each of the municipalities in their respective counties to organize a constructive campaign to fight the Japanese and Asiatic garden beetles and to acquaint the public with the facts concerning their control. It is the hope of the association that the authorities in the various cities and municipalities in the metropolitan area will avail themselves of an educational program so that they will be able to carry on an effective campaign in all towns at one time.

William Halliey, Sec'y.

CORRECTION.

Interest in the new fruit varieties mentioned by Dr. W. H. Alderman in his talk before the Minnesota State Nurserymen's Association last month brings to light two errors on the part of the reporter in jotting down the talk, which Dr. Alderman gave without notes.

The variety referred to as the Phoebe plum, on page 16 of the December 15 issue of the American Nurseryman, should have been Fiebing, a variety introduced by Charles Haralson and developed by him shortly after he left the Minnesota fruit breeding farm. What was noted as Cressett should be La Crescent, a variety introduced by the fruit breeding farm about fifteen or sixteen years ago.

GEORGIA FARMS ASSOCIATION.

The Georgia State Nurserymen's Association, organized in Atlanta several weeks ago, held its first regular meeting January 10, at Macon. The officers are: W. L. Monroe, Atlanta, president; Sam C. Hjort, Thomasville, vice-president, and H. T. Conner, Macon, secretary.

For forty years connected with Henry A. Dreer, Philadelphia, James C. Clark has resigned as manager of the Dreer Nurseries, Riverton, N. J. James M. Vogdes, president, has added to his duties those of general manager. Mr. Clark will continue as a member of the board of directors.

GRAFTED JUNIPERS

We offer the following varieties for
 spring delivery from 2 1/2-in. pots, grafted
 on Juniperus virginiana understock.

J. chinensis columnaris glauca
J. chinensis columnaris viridis
J. chinensis neohorizensis
J. chinensis Sargentii
J. chinensis Sargentii glauca
J. squamata
J. squamata argentea
J. squamata Meyeri
J. japonica aureo-variegata
J. virginiana Burkii
J. virginiana Canariensis
J. virginiana elegansissima
J. virginiana glauca
J. virginiana Keteleeri
J. virginiana Kosteri
J. virginiana Schottii
J. virginiana pendula
J. virginiana pyramidiformis

Price \$25.00 per 100

HESS' NURSERIES

Mountain View, New Jersey

ARONIA

12 to 16 ins. 16 to 20 ins.

BRILLIANTISSIMA
ARBUTIFOLIA
MELANOCARPA

2-year-old seedlings for lining out

Write for prices

HINSDALE NURSERIES, INC.

7200 S. Madison St., Hinsdale, Ill.

HEMLOCKS

Sheared and several times transplanted

Write for our list

CURTIS NURSERIES
 CALICOON NEW YORK

JUNIPERUS Virginiana

(Red Cedar)

300 sheared specimens, Platte River
 type, 7 to 8 ft., 8 to 9 ft., 9 to 10 ft.
 White Elm, 1 1/2, 2 and 2 1/2-in. cal.
 Spiraea Vanhouttei, 4 to 5 ft.
 Prices on request.

The Blue Valley Nurseries & Orchard Co.
 Blue Rapids, Kan.

JEWELL Wholesale

Hardy Minnesota-grown
 Nursery Stock and Liners

THE JEWELL NURSERY CO.
 POUCH N
 Lake City, Minnesota

DOUGLAS FIR SEEDLINGS

\$22.50 per 1000; \$200.00 per 10,000
 \$1750.00 per 100,000

Finest quality from northern Colorado
 and Wyoming seed.

A complete stock of lining-out ever-
 greens and shrubs. Preliminary list
 mailed on request.

SCOTCH GROVE NURSERY, Scotch Grove, Iowa

Coming Events

CONVENTION DATES.

January 19 and 20, Oklahoma State Nurserymen's Association, Huckins hotel, Oklahoma City.

January 19 and 20, Iowa State Nurserymen's Association, Ames.

January 20 and 21, Ohio Nurserymen's Association, annual meeting, Deshler-Wallack hotel, Columbus.

January 24, Eastern Nurserymen's Association, Hotel Hildebrandt, Trenton, N. J.

January 25, North Carolina Nurserymen's Association, board room, North Carolina Department of Agriculture, Raleigh.

January 25 and 26, New Jersey Association of Nurserymen, annual winter meeting, Hotel Hildebrandt, Trenton.

January 25 and 26, New England Nurserymen's Association, annual meeting, Hotel Statler, Boston, Mass.

January 28, Indiana Nurserymen's Association, Lincoln hotel, Indianapolis.

February 2 and 3, Michigan Association of Nurserymen, Olds hotel, Lansing.

February 2 and 3, Pennsylvania Nurserymen's Association, Hotel Brunswick, Lancaster.

MICHIGAN PROGRAM.

The Michigan Association of Nurserymen will hold its seventeenth annual convention, February 2 and 3, at the Olds hotel, Lansing. Following is the program:

WEDNESDAY, FEBRUARY 2, 1:30 P. M.
President's message, by Arthur L. Watson, Grand Rapids.

Report of secretary and treasurer, by Harold E. Hunziker, Niles.

"Use of Growth-promoting Substances as a Stimulus or Rooting Cuttings of Shrubs," by Prof. L. O. Cheek, Ohio State University.

"The National Business Outlook," by Clarence O. Siebenhaar, past president, A. N.

"Latest Control Methods of Pests on Nursery Stock," by Prof. Ray Hutson, Michigan State College.

Committee reports.
Election of officers.

WEDNESDAY, FEBRUARY 2, 6:30 P. M.
Social Meeting and Entertainment.
Banquet.

Introduction of guests.
"The Prospects of Building and Its Effects on the Nursery Business in 1938," by Col. John G. Emery, past national commander of the American Legion and many times president of the Grand Rapids Real Estate Board.

Special entertainment, arranged by the committee.

THURSDAY, FEBRUARY 3, 9:30 A. M.
Showing of film sponsored by the Michigan Association of Nurserymen, by Paul Krone, Michigan State College.

"Land Profits vs. Labor Costs: A study of how to derive the same profit from the selling of services as from the selling of plant material," by Harold E. Hunziker, Niles.

Round-table conferences: Chairman, B. J. Mahanah, Romeo.

Subject	Leaders
A. Nursery Inspection Activities	E. C. Mandenberg
B. Mail-order Situation	E. H. Burges
C. Washington Representative	Benjamin Greening
D. Social Security Act and State Sales Tax Applied	Ralph Coryell
E. Fruit Descriptions	Dr. V. R. Gardner
F. Prospects for 1938 and Past Year's Business	All members

CONNECTICUT PROGRAM.

The annual meeting of the Connecticut Nurserymen's Association will be held January 19 at the Elm Tree Inn, Farmington, Conn. The business meeting will open at 10 a. m.

The following will be speakers: George Graves, of the Waltham experiment station, on plant propagation; Eugene Dietler, of the National Association of Credit Men, on nursery cred-

its, and Dr. George Brookes, renowned author and traveler. There will be a short program of musical entertainment.

The officers are: President, Edgar M. Brown, Simsbury; vice-president, Louis Vanderbrook, Manchester, and secretary-treasurer, Peter J. Cascio, West Hartford.

IOWA NURSERYMEN'S COURSE.

Part of Annual Convention This Month.

In connection with the annual convention of the Iowa Nurserymen's Association, January 19 and 20, at Ames, arrangements have been made, in cooperation with the Iowa State College, for the first annual short course for nurserymen in the state. This initial program is designed to interest all groups of nurserymen and their employees. More attention will be devoted to certain fundamentals in propagation, soil management and pest control than will be allotted in later courses, for the reason that it is hoped to pave the way for detailed topics in future programs.

The guest speaker for the 1938 course is Prof. W. H. Alderman, head of the department of horticulture at the University of Minnesota, St. Paul, and an authority on fruit breeding.

Registration headquarters will be maintained in the Dairy Industry building, where the meetings will be held. This building is on the east side of the campus, not far from the greenhouses and Horticultural building. There will be a fee of \$1 per person for the course. Additional information can be obtained by writing Prof. B. S. Pickett, of the department of horticulture, Ames; R. M.

Few shrubs combine so many good qualities of foliage, flower, insect and disease resistance, adaptability to many uses and extreme hardiness as does

CARAGANA ARBORESCENS

Priced:	1000	5000	10,000
6 to 9 ins.	\$5.00	\$18.00	\$29.00
9 to 12 ins.	7.00	28.00	49.00
12 to 18 ins.	10.00
18 to 24 ins.	14.00	65.00	105.00
2 to 3 ft.	20.00	78.00	135.00
3 to 4 ft.	35.00	150.00

These are 2-year seedlings with plenty of root; larger sizes mostly well branched. Terms: Cash; or 25 per cent cash, balance c.o.d. Not less than 10,000 at 10,000 rate. F.O.B. Fort Collins. Packing extra at actual cost.

Frank M. Richard, Jr.
P. O. Box 363
Fort Collins, Colo.

HARD MAPLE

At sacrifice prices to reduce surplus
6 to 8 ft. to 2-in. 40¢ and up.

Can use some exchange.

Perry Nurseries, Perry, Iowa

Asparagus Roots

We offer to the trade one of the largest plantings of 1 and 2-year roots in the east. Write us for prices.

E. W. TOWNSEND SONS NURSERIES
Salisbury, Maryland

Vifquain, chairman of the short course division, Ames, or C. C. Smith, secretary of the Iowa Nurserymen's Association, Charles City.

Schedule of Activities.

A complete schedule of the program activities follows:

JANUARY 19, 9 A. M.
"Recent Ideas on the Rooting of Cuttings," by B. S. Pickett, of Iowa State College.
"Production of New Fruits at the Minnesota Agricultural Experiment Station," by W. H. Alderman, of the University of Minnesota.
Discussion.

"Some Fundamental Considerations in Respect to Soils," by B. J. Flirkens, of Iowa State College.
Luncheon, at the Memorial Union.
Appointment of committees.

"The New National Set-up in Washington," by C. G. Marshall, Arlington, Neb., vice-president of the American Association of Nurserymen.

JANUARY 19, 1:30 P. M.

"New Varieties and Their Introduction," by H. L. Lantz and B. S. Pickett, of Iowa State College.
Discussion.

"Recent Fruit Introductions and Their Value to the Nurseryman," by W. H. Alderman.
"Highway Planting," by J. M. Hall, landscape architect for the Iowa state highway commission.

JANUARY 19, 6 P. M.
Dinner at the Sheldon-Munn hotel, with T. J. Meyers, of the pomology subsection, Iowa State College, as toastmaster.

"Our Nursery Neighbors," by Roy Underwood, Lake City, Minn., president of the Minnesota Nurserymen's Association.

JANUARY 20, 9 A. M.
"The Fundamentals of Plant Propagation," by H. W. Ritchey, of Iowa State College.
"Hardy Stocks," by T. J. Maney.

Discussion.
"The Planting and Care of Landscape Materials," by B. R. Rothacker, of Iowa State College.
Luncheon at the Memorial Union.
Report of committees.

JANUARY 20, 1:30 P. M.
"Plant Diseases of the Nursery and Their Control," by I. E. Melhus, of Iowa State College.
"Insects of the Nursery and Their Control," by O. J. Drake and C. H. Richardson, of Iowa State College.

CROWE'S NURSERIES, Gilroy, Cal., installed a new system of Westinghouse illumination at their establishment just before Christmas, including flood lights designed to give the appearance of daylight.

-WANTED TO BUY-

500 Black Hills Spruce	12 to 18 ins.	18 to 24 ins.
500 Colorado Blue Spruce	12 to 18 ins.	18 to 24 ins.
500 Colorado Green Spruce	12 to 18 ins.	18 to 24 ins.
500 Norway Spruce	12 to 18 ins.	18 to 24 ins.
500 Austrian Pine	12 to 18 ins.	18 to 24 ins.
500 Scotch Pine	12 to 18 ins.	18 to 24 ins.
500 Mugho Pine	6 to 8 ins.	8 to 12 ins.
1000 Pfitzer's Juniper	6 to 8 ins.	8 to 12 ins.
250 Irish Juniper	6 to 8 ins.	8 to 12 ins.
250 Red Cedar	6 to 8 ins.	8 to 12 ins.

ALL TO BE SEEDLINGS EXCEPT
PFTZER'S AND IRISH JUNIPERS

PFUND BELL NURSERY CO.
Elmhurst, Ill.

STOCK WANTED

30,000 to 50,000 *Syringa Vulgaris*, blue, lining-out stock, 6 to 12 and 12 to 18 inches. Cash.

C. J. Van Bourgondien
Babylon, N. Y.

PEONIES

All types, including Tree Peonies

The Cottage Gardens
Lansing, Mich.

PEACH TREES

Thrifty June-budded Stock

We offer to the trade an up-to-date list of the leading varieties to select from. All of these trees are grown on our farms in Maryland. They have shaped up nicely and have a well balanced fibrous root system—the kind of stock that will please you and your customers.

We invite your inquiry and offer special prices on early bookings.

E. W. Townsend Sons Nurseries
Wholesale Dept.
Salisbury, Maryland

STRAWBERRIES

Standard
and
Everbearing



From our large plantings, we are in position to fill your orders direct. Let us quote you.

We offer 50,000 Latham and 25,000 St. Regis Raspberries at a low price for immediate sale.

STAHELIN'S NURSERY Bridgman Mich.

SMALL FRUIT PLANTS

Evergreens — Shrubs
Lining-out Stock
Send for Complete Trade List

SCARFF'S NURSERIES
New Carlisle, O.

LATHAM RASPBERRIES
CHINESE ELM Hardy Strain
Northern Apple Seedlings

ANDREWS NURSERY
FARIBAULT, MINN.

Wholesale Growers of
Grapevines, Currants,
Gooseberries, Blackberries
and Raspberries

Let us quote you on your requirements

FOSTER NURSERY COMPANY, INC.
69 Orchard St. Fredonia, N. Y.

STRAWBERRY PLANTS

No better plants grown than Hill's high-grade, true-to-name, well graded, new and standard varieties. A trial order is convincing. Let us quote you on your requirements.

HILL'S PLANT FARMS
Box C Selbyville, Delaware

PEACH PITS

Our Pits Compare Favorably
With the Best

HOGANSVILLE NURSERIES
HOGANSVILLE, GEORGIA

EASTERN CANADA ASSOCIATION.

At the annual meeting of the Eastern Canada Nurserymen's Association, at Toronto, November 23, 1937, specifications as to horticultural standards in grading were adopted, along the lines of those of the American Association of Nurserymen, though briefer in outline. These were the work of a committee on grades and standards composed of Leon Smith, chairman; R. Endean, S. E. Davidson, Fred Stensson, E. J. Wood and W. L. Paterson.

The election of officers resulted in the former leaders retaining office, as follows: Honorary president, Senator E. D. Smith; president, E. B. Luke; vice-president, H. B. Dunnington-Grubb; directors, S. Wellington, L. Smith and K. McDonald; representative on horticultural council, E. B. Luke.

Discussion of unfair competition led to naming of a committee to study and report upon the whole problem of price spreads, as follows: Leon Smith, chairman; A. E. Brown, S. E. McConnell, Robert Endean and S. E. Davidson.

The committee on unfair competition is composed as follows: H. B. Dunnington-Grubb, chairman; F. W. Wellington, R. Endean, E. B. Luke, O. Beard and W. H. Perron.

The tariff committee is composed of S. E. McConnell, chairman; John Condon, E. S. Wellington, S. E. Davidson, Leon Smith, W. L. Paterson and Robert Endean.

It was the unanimous opinion of those attending the meeting that "should any discussion arise regarding the tariff on nursery stock, a recommendation should be made that rose stocks for grafting and budding be imported free of duty."

OUTPOST PAYS BONUS.

The Outpost Nurseries, Ridgefield, Conn., paid a cash bonus December 31 to all regular employees. The amount paid varied from a few dollars to several hundred dollars, depending upon the status of the employee. This was the second bonus paid by the company during 1937, as a similar amount was distributed at the end of the spring season.

"We are rather proud of the fact that we have been able to pay a bonus to our employees this year," states Maurice L. Condon, general manager, "especially since there has been so much talk of bad business conditions throughout the country for the past two or three months. But probably we were fortunate in securing most of our contracts before things got really bad. However, we are highly optimistic about the nursery business for the next year or two. We hope we are right, and that before the beginning of the spring shipping season, the present national situation will be somewhat straightened out."

TWO BURBANK ROSES PATENTED.

The following new plant patents were issued January 4, 1938, according to Rummel, Rummel & Woodworth, patent lawyers of Chicago:

No. 206. Rose. L. Burbank, deceased, assigned to Stark Bros. Nurseries & Orchards Co., Louisiana, Mo. A new and distinct variety of climbing rose plant, characterized as to novelty by its unusual coloring, its vigorous growth and hardiness.

No. 207. Rose. L. Burbank, deceased, assigned to Stark Bros. Nurseries & Orchards Co., Louisiana, Mo. A new and distinct variety of climbing rose plant, characterized by its white tea rose like flower, borne on long, strong stems, with old rose fragrance.

BEAUTY BUSH

(*Kolkwitzia Amabilis*)

We offer fine hardwood cuttings made of prime wood. Handmade, 8 inches long. 50c per 100, \$4.00 per 1000. Shipment now or later.

FINE BENCH GRAFTS

for lining out

Flowering Crab—on whole roots. *Niedzwetkiyana*, or Russian Red-Vein. Hardy and beautiful, red flowers, foliage and fruit, purple branches.

Prunus Newport—on americana plum. Fine red foliage all summer, pink flowers in spring, showy and very hardy.

French Lilacs—on whole privet roots. *Charles X*, fine clusters of reddish lilac. *Ludwig Späth*, dark purple red; fine. *Mme. Abel Chatenay*, double white. *Mme. Le Grays*, large, single white. *Red Persian*, select red-flowering; very fine.

All grafts \$5.00 per 100, \$48.00 per 1000. Send for complete list of lining-out stock. *Barberry*, *Clematis*, *Spiraea*, *Hydrangea*, *Viburnums*, etc.

HARMON NURSERY Prospect, O.

RASPBERRIES

	1-yr. No. 1	Per 1000
Taylor (Red)	\$25.00	
Indian Summer (Red)	\$35.00	
Sodus (Purple tips)	\$25.00	

Per 1000
\$5.00

Marion (Purple tips) 2-year and other grades

Special prices on large quantities. Let us quote you on your future needs.

Dunham's Grand Mere Nurseries
Baroda, Mich.

Wholesale Growers of Strawberries, Raspberries, Blackberries and Grapevines In All Varieties.

Let us quote on your requirements

THE WHITTEN-ACKERMAN NURSERIES
Box A Bridgman, Michigan

VIRGINIA CRAB SCIONS

100 for \$3.00 — Standard

JENSEN'S NURSERY
AMES, IA.

At Wholesale to Nurserymen

Lining-out seedlings, many varieties.
Hall's Japanese Honeysuckle, transplanted; also liners.

Trees and Shrub Seeds.
Calycanthus, *Camellia*, *Camellia Red*, *American Beech*, *Butterfly*, *Sheilbert Hickory Nut*. Write us your wants.

TARLTON NURSERIES
Merton Bros., R. 7, McMinnville, Tenn.

HERBS

Pot-grown plants: over a hundred varieties.
Dried Herbs for Flavoring and Fragrance.
Other plants of unusual character and with the charm of old-time gardens.

Write for Catalogue

Weathered Oak Herb Farm, Inc.
BRADLEY HILLS, BETHESDA, MARYLAND

OBITUARY.

Janet Kaar Bryant.

Janet Kaar Bryant, 13-year-old daughter of Mr. and Mrs. Miles W. Bryant, Princeton, Ill., died December 29. She was stricken with encephalitis during the summer of 1936 and had been gradually weakening since that time. She is survived by her father, who is past president of the American Association of Nurserymen and now secretary of the Illinois State Nurserymen's Association, and by her mother; by an older sister, Helen Louise; a younger brother, Richard Miles, and three grandparents, Mr. and Mrs. Guy A. Bryant and Jacob Kaar. Born July 5, 1924, she had lived all of her life in Princeton. She early had aspirations to be a writer and several of her poems had been published in *Child Life*.

George W. Tuttle.

George W. Tuttle, nurseryman of Pasadena, Cal., died December 30 after an illness of several weeks. Mr. Tuttle, who was 76, had had a long and interesting career. He was born at New Haven, Conn., and entered the printing business there. In 1885 he went to California for his health. He started a curio business at Pasadena, which he continued until he opened his nursery in 1930.

Besides his widow, three sons survive him. Funeral services were held December 31 at the Lincoln Avenue Presbyterian church, where Mr. Tuttle was an elder. Interment was at the Mountain View cemetery.

THE SEASON'S GREETINGS.

The New Year's greetings of the Atlantic Nurseries, Inc., Berlin, Md., are an automatic pencil of attractive design, on the barrel of which is printed a calendar of the full year 1938.

HOW EFFICIENT ARE YOUR EMPLOYEES?

Experienced handlers of nursery stock, yes—but can they sell your products—create new markets?

Many nurserymen have found that the American Landscape School home-study course trains their men to become successful nursery service salesmen. Practical gardening experience combined with the thorough, professional training in spare time makes these men capable of prescribing for particular problems, of planning complete jobs of landscaping.

Your men—and your business—can benefit from the professional home-study course.

Covers all problems of the nurseryman and landscape gardener—planting and plant materials, maintenance, SELLING LANDSCAPE SERVICE, mapping, planning, drafting, laying out parks, golf courses, subdivisions, cemeteries, etc.

Personal supervision of experienced, practicing landscape gardeners.

Let us show you how we can help your personnel do their work better, bring in more business! Write us today.

AMERICAN LANDSCAPE SCHOOL
12127 Plymouth Building Des Moines, Iowa

OBITUARY.

TARIFF VS. RECIPROCITY.

Lower import duties on cut flowers—fresh, dried, prepared or preserved—cuttings, seedlings, and grafted or budded plants of deciduous or evergreen ornamental trees, shrubs or vines, and all other nursery or greenhouse stock not specially provided for in the United States tariff law, are among the inducements which the Department of State of the United States government will offer the Kingdom of Great Britain, Newfoundland and the British colonial empire, in negotiations for a reciprocal trade agreement. Rose stock or rose plants are not included.

Growers will be given opportunity to protest against lower tariffs. The committee for reciprocity information has announced it will receive briefs and applications to be heard up to February 19. Public hearings will open March 14 at Washington, D. C.

After the reciprocity committee concludes its hearings it will file a report with the Secretary of State, who will then arrange round-table conferences at which representatives of the United States will meet with Great Britain's delegation to decide which tariffs will be reduced or eliminated in return for similar concessions from England.

Inclusion of flowers and nursery stock in the list of articles to be considered in the import duty slash does not mean that a concession with respect to them will necessarily be granted, Secretary of State Cordell Hull announced. "The concessions to be granted," he explained, "are not decided upon until after all interested parties in the United States have been given full opportunity to present information and views in writing and orally."

AUCHTER HEADS PLANT BUREAU.

Eugene C. Auchter has been appointed chief of the bureau of plant industry of the United States Department of Agriculture, succeeding Frederick D. Richey, who resigned to engage in professional corn breeding. The appointment was announced by the Secretary of Agriculture December 31.

Dr. Auchter was reared in western New York on a farm. He was graduated from Cornell University in 1912. From 1912 to 1917 he was a member of the West Virginia experiment station, and he was head of the department of horticulture at the University of Mary-

CLASSIFIED ADVERTISING

Peonies: Tree and Herbaceous, best varieties. Oberlin Peony Gardens, Sinking Springs, Pa.

Forest tree and ornamental shrub seeds for Home Nursery, Liberal, Mo.

Peach Seed, 50 bus. screened, Tennessee naturals, running 7000 seeds to the bu. Write for prices.

Tennessee Nursery Co., Box 1, Cleveland, Tenn.

Azalea Liners.

We will have approximately fifty thousand Azalea liners for February-March delivery. Place your order now.

Florida Nursery & Landscape Co., Leesburg, Fla.

Hansen Bush Cherry.

The newest in early-bearing Cherry fruits. Dwarf growing. Enormous yielding. Extremely hardy and drought-resistant. Large, choice eating fruits. Delicious preserves, jelly, jam, cordial.

Trial: 2 large 2-year, \$1.00, prepaid.

12 large 2-year, \$2.50; 12 small, \$1.50.

All prepaid.

Send for our list of Newest Plant Introductions. Carl A. Hansen Nursery, Brookings, S. D.

land from 1918 to 1928, when he joined the bureau of plant industry as head of the division of fruit and vegetable crops and diseases. Since 1934 he has also been assistant chief of the bureau of plant industry.

The new bureau chief has conducted experimental work in all parts of this country and has also studied agricultural conditions in Europe, Africa, Puerto Rico and some of the Central American republics. In addition to his writings on practical horticultural problems, he has made numerous contributions to the basic sciences, particularly in plant nutrition, the influence of light and other environmental factors on plant growth, and to fruit breeding. Dr. Auchter is a member of many scientific and professional societies and has taken prominent part in their programs and administration. He also is an honorary fellow of the Royal Horticultural Society of England.

ST. PAUL NOTES.

The state entomologist, Prof. A. G. Ruggles, has left University Farm on leave of absence for several months. Professor Ruggles has departed for the south where he is to make an intensive study of certain insects in which he is much interested.

T. L. Aamodt, chief deputy inspector of the nursery inspection department, has recently been appointed a deputy of another kind, as he has to continue giving courses in entomology at the College of Agriculture, University Farm, which were previously given by Professor Ruggles.

Jake Juhl, proprietor of the Hoyt Nursery, St. Paul, has been away on a visit to New Mexico.

SITUATION WANTED

By single man who desires a future in the nursery business; 12 years' experience in landscape and greenhouse work, capable of selling; age 25. References furnished. Would like offers before spring rush.

Address No. 31, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

SITUATION WANTED

In Rocky mountain region or Pacific northwest. Landscape selling, designing, general nursery work, greenhouse experience, accounting training; 25 years old. Write Charles Wright, P. O. Box 1092, Billings, Mont.

HELP WANTED

Reliable single man, experienced in nursery, greenhouse, propagating and landscaping. Must be able to handle men, meet public and be American citizen.

Address No. 78, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

HELP WANTED

Landscape foreman, a reliable steady man, able to read plans, handle men, meet public; have a knowledge of nursery practice, landscape construction, pruning, tree surgery and lawn maintenance. Furnish references. Address No. 80, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.



Patent No. 2072605

CLOVERSET POTS

MADE OF HEAVIER STOCK THAN LAST YEAR

Help You Grow Better Stock
Help You Make More Profit
Bring Your Business Up to Date

**For Roses, Perennials, Chrysanthemums,
 Shrubs, Vines and Fruit Trees**

CLOVERSET POTS ARE MADE OF ASPHALT IMPREGNATED FIBER STOCK

They are durable They are durable enough to permit growing your plants in them the entire growing season.

They are light They are light enough (they weigh only 1/20 as much as a clay pot of equal soil capacity) to be easily handled.

They do not dry out They are non-porous, which means they will not dry out quickly on hot or windy days, and therefore do not require constant watering as does a clay pot.

You can sell your plants in bloom By growing your stock in full foliage and in full bloom, when it will command the best price, and most profits.

They eliminate cut-rate competition The use of our Cloverset Pots will enable you to eliminate the competition of the cut-rate drug and department stores, who cannot sell nursery stock in these big pots on account of the excessive weight and the expense of handling.

Send us a sample order Give them a trial and you will always use them.

Send us your order with your remittance, \$13.50 for 300 pots, 100 each of 2 sizes, or send for full information about sizes, prices and testimonials from users of our pots.

Carton of samples, by mail for 25¢ to pay postage

105th Street
 and Broadway

Kansas City, Mo.

They make the plant look larger and better They are so finished in appearance that they add to the attractiveness of the plant grown in them.

Large soil capacity They are large enough to comfortably accommodate the roots in a natural position of any No. 1 Rose Plant and all the most valuable size shrubs and small trees.

They are cheap in price They are so cheap that they can be given away with the plant which insures the safe arrival, in first-class condition, of the plant grown in them, to its final destination.

They make the nursery business an all summer business They permit the nurseryman to extend his selling season from early spring through the summer and fall, and to plant Roses and other nursery stock grown in them even in the hottest summer weather, without the least sign of wilt of either the foliage or the blooms.

CLOVERSET FLOWER FARM,

CATALOGUES RECEIVED.

[In writing for a copy of any of the catalogues reviewed below, please mention that you saw it described in The American Nurseryman.]

Hallawell Seed Co., San Francisco, Cal.—After a special section offering the improved asters, the wholesale list of flower seeds, a pocket-size booklet, presents a general list—from abronia through zinnias. Also handled are seeds of trees and shrubs and of vegetables. There are fine black and white illustrations.

Carl Sabach, Berkeley, Cal.—Flowers pictured in color on the covers and more inside, along with a number of black and white half-tones, result in a liberally illustrated catalogue, containing thirty-two pages. The Sabach specialties, as always, are gladioli and dahlias, but a selected list of flower seeds is also given. Among the new gladioli is Grand Opera, pink, said to have flowers sometimes eight inches across.

T. Sakata & Co., Yokohama, Japan.—Clear type, excellent half-tones and fine color work distinguish this 86-page catalogue printed in Japan. The language is English, and the American agent, Herbat Bros., New York. Twenty-nine pages are given over to petunias, followed by other flower specialties and a general listing of vegetables and flowers.

Katsenstein & Co., Atlanta, Ga.—Seeds of conifers, trees and shrubs, fruit trees, palms and other tropical and subtropical plants are offered in a vest-pocket booklet, along with roses, lining-out stock, trees and shrubs and fruit seedlings. Azaleas and camellias are included, also seeds and roots of medicinal plants. Books and a few nurserymen's sundries are listed. A separate folder offers a small collection of tree seeds.

Kallman's Garden Nursery, Santa Barbara, Cal.—Rosebushes are presented in a pamphlet, there being separate lists of the new and rare varieties and of the older sorts. Rates given are retail.

Glen St. Mary Nurseries Co., Glen St. Mary, Fla.—Camellias, azaleas, oleanders and hollies are only some of the stock pictured in excellent color in the 36-page catalogue, which is also replete with fine pictures in black and white. Magnolias, palms and cycads, roses, nuts and fruits, including citrus varieties, and shrubs, trees and hedges are included in the stock listed. The booklet is indexed.

Mount Arbor Nurseries, Shenandoah, Ia.—The winter trade list is a folder, offering fruit trees and rose stocks, deciduous seedlings and trees, pruners and grafting supplies.

Henry A. Dreer, Inc., Philadelphia, Pa.—The hundredth anniversary edition of Dreer's "Garden Book" appropriately reproduces on the front cover a picture of the first home of the business. On

**LABELS
 FOR
 NURSERYMEN**
**THE
 BENJAMIN CHASE
 COMPANY**
DERRY, N. H.

STANDARD GARDEN TRACTORS
 Flow
 Seed
 Cultivate
 Mow Hay
 and Lawns
 Powerful Gas Tractors for Small Farms,
 Gardeners, Florists, Nurseries,
 Fruit Growers, Poultrymen.
 1 & 2 Cylinders
 High Wheel, Rubber or
 Steel Tires, Walk or Ride
 Do Belt Work—Free Catalog
STANDARD ENGINE CO.
 Minneapolis, Minn. Philadelphia, Pa.
 4034 Como Ave. 2860 Market St. New York, N. Y.
 302 Cedar St.

**CLARK GARDNER
 NURSERIES**

Osage, Iowa

Originators of patented **SEMI-POTTED PLANT AND BULB PACKAGE** for over-counter trade. Has **WATERING TUBE** and other unique features.

the first pages are shown other early views of the city, portraits of the founder, Henry A. Dreer, and his son, William F., and pictures of the present quarters, an 8-story structure built in 1924, and of the various departments, with portraits of department heads. The first page contains a concise history of the firm, begun in 1838 by Henry A. Dreer, then only 20 years old.

HEALTHY ROOT DEVELOPMENT

YOU can get better results with Evergreens, Shrubs, and Perennials of all sorts, if they are planted in a properly conditioned soil.

Dig in G.P.M. Peat Moss before you do any planting. It readily makes humus, keeps the soil well aerated at all times, and stores up moisture and plant food. It promotes vigorous root growth and luxuriant top growth.

G.P.M. Peat Moss comes in pressure packed bales to assure you more peat substance for your money. The "green" bale head distinguishes it from inferior grades. Write today for quantity prices and free literature. Address Dept. AM-21.

PEAT G PM MOSS

ATKINS & DURBROW
 165-M John St., New York, N. Y.
 1524 South Western Ave. Chicago, Ill.
 177 Milk Street Boston, Mass.

ARIENS-Tiller
 The American
 TILLAGE COMBINE
 3 MODELS TO FIT
 EVERY NEED
ARIENS CO.
 Box 710 Brillion, Wis.

who was succeeded at his death, in 1875, by his son, who, in 1892, organized the business as a corporation, with department heads as stockholders. Today, besides the Philadelphia quarters, there are nurseries at Riverton, N. J., with ten acres under glass; Locust Farm, and greenhouses and nurseries at Riverview. The catalogue, indexed and generously illustrated in color and black and white, contains 184 pages.

WIN YOUR CUSTOMERS
GOOD WILL..

"BLACK LEAF 40"
SURE KEEPS DOGS
AWAY!

TELL THEM
HOW TO
DETOUR DOGS AROUND
EVERGREENS & SHRUBBERY

• You can do your customers a real service by recommending "Black Leaf 40". A little "Black Leaf 40" sprayed on the lower branches of shrubbery and evergreens will keep dogs away, preventing stains and discoloration.

"Black Leaf 40" on bushes or evergreens is harmless to dogs—they just don't like the odor and go elsewhere. It is both an easy and an economical way of protecting shrubbery from the "dog menace". Your customers will also find many other uses for "Black Leaf 40"—the "versatile" insecticide.

TOBACCO BY-PRODUCTS & CHEMICAL CORP. INCORPORATED Louisville, Ky. ©1936

Black Leaf 40
DETOURS DOGS
AWAY FROM SHRUBBERY

Practical Tree Surgery

By

Millard F. Blair

M. F. Blair Tree Experts,
Palo Alto, Cal.

Covers the entire subject
for the first time

Just Published

\$4.00

For sale by

American Nurseryman
508 S. Dearborn St., Chicago, Ill.

WHICH TWINE?

Jute is good, Sisal is good, Java is good, Cotton is good—but WHEN is any one of these the BEST for your purpose?

Send us a sample of what you are using, and we will recommend THE twine most suitable for YOUR purpose.

FREE "Knots the Sailors Use," 8-page booklet with 75 pictures shows how to tie almost any useful knot. Worth having—write today.

GEO. B. CARPENTER & CO.
CHICAGO, ILLINOIS

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From a letter just received:

"Mr. F.—is developing a nursery, and I suggested he should take your excellent magazine. Here is check for his subscription."

You will do a fellow nurseryman a favor by urging that he send a dollar for a year's subscription to the American Nurseryman.

And we'll thank you, too.

FAMOUS for QUALITY

LÖMA'S 1938 PROGRAM

THE LÖMA FORMULA

is the result of scientific recommendations of 26 of the country's leading agronomists, horticulturists and pomologists associated with Federal and State Governments and Agricultural Colleges. The LÖMA formula satisfies the most exacting feeding requirements—for *Everything Green that Grows*.

Offers New Features—Bigger Profits!

- FOR YOUR CATALOG—New free mats and electros available now. Write for our new broadside. Tie-in with LÖMA'S national advertising.
- NATIONAL ADVERTISING—LÖMA launches a larger advertising campaign in 1938, using both national magazines and local newspapers.
- DEALER HELPS—LÖMA provides dealers with a liberal assortment of new, attractive Window and Counter Displays, Banners, Leaflets. Also a new *Sales-Producing Display Rack* for firms featuring LÖMA.
- QUALITY PACKAGES—LÖMA offers a quality product in a quality package—smartly designed, moisture-proof bags and canisters in convenient sizes.
- EXTRA DISCOUNTS—Extra discounts for early dealer orders.
- LÖMA SPREADERS—LÖMA spreaders are strongly made and fool-proof. Profitable to sell. Will increase your sales of LÖMA. Five sizes—14" to 36".

JOBBING DISCOUNTS ARE STILL AVAILABLE IN CERTAIN LOCALITIES. Inquiries invited. Write for full information.

Tennessee Corporation, 61 Broadway, New York, N. Y.

USE LÖMA

and your lawn will become a sturdy, thick carpet of emerald-green . . . your flowers will be more beautiful and longer-lasting . . . your vegetables will be meatier and more flavorful . . . your fruit trees will yield more abundantly . . . and your shade trees will be healthier and more handsome.

Löma

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